THE PUBLIC INTEREST ENERGY RESEARCH (PIER) PROGRAM, ENVIRONMENTALLY PREFERRED ADVANCED GENERATION (EPAG)

REQUEST FOR PROPOSALS RFP #500-01-502

For

Research, Development, and Demonstration Projects Focused on Advanced Reciprocating Internal Combustion Engine (ARICE) Systems



State of California California Energy Commission December 7, 2001

Questions or clarifications about this RFP should be directed to:

Judith Efhan, Contracts Officer California Energy Commission 1516 Ninth Street, MS-18 Sacramento, California 95814 Telephone: (916) 654-4397

FAX: (916) 654-4423

E-mail: jefhan@energy.state.ca.us

This RFP is available on the following Web Sites:

Energy Commission energy.ca.gov/contracts
California State Contracts Register dgs.ca.gov/osmb/cscr

Copies may be obtained by writing or calling:

California Energy Commission 1516 Ninth Street, MS-18 Sacramento, California 95814 Telephone: (916) 654-4788 FAX: (916) 654-4423

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I. Introduction

1. How Is This RFP Organized?

This Request for Proposal (RFP) is organized into the following sections:

Section I Introduction

Section II Proposal Format and Required Documents

Section III Evaluation Process and Criteria

Section IV Administrative Information

Section V RFP Attachments (Including Forms)

2. How Was the Public Interest Energy Research (PIER) Program Developed?

In 1996, then Governor Pete Wilson signed into law Assembly Bill (AB) 1890 (1996 California Statutes, Chapter 854), which provided authority for a restructuring of California's electric services industry. Among other things, AB 1890 added Section 381 to the Public Utilities Code, requiring that at least \$62.5 million be collected annually from investor-owned electric utility ratepayers for "public interest" energy research development and demonstration (RD&D) efforts not adequately provided by competitive and regulated markets. Of this amount, the California Energy Commission (Commission) administers \$61.8 million per year through the PIER program.

Following a lengthy, statewide collaborative effort, the Commission adopted its *Strategic Plan for Implementing the RD&D Provisions of AB 1890* (Commission Publication No. P500-97-007, June 1997). The Commission's RD&D Strategic Plan identified the overall mission of the PIER program as follows:

The mission of the 'Public Interest Energy Research' program is to conduct public interest energy research that seeks to improve the quality of life for California's citizens by providing environmentally sound, safe, reliable and affordable energy services and products. 'Public interest energy research' includes the full range of research, development and demonstration activities that will advance science or technology not adequately provided by competitive and regulated markets.

The Commission has prepared the *Five-Year Investment Plan*, 2002 Through 2006, (Ref.: http://www.energy.ca.gov/research) to present the PIER program's strategic approach for addressing California's future energy needs. The strategies will lead to solutions—developed through RD&D projects—to increase electricity supply, reduce demand, lower peak demand, improve reliability and power quality, improve the operation of the market, and protect and enhance the environment. The PIER Program's strategic approach will help to alleviate California's energy problems.

3. What is the Purpose of This Request for Proposals?

The Commission is issuing this Request for Proposals (RFP) to select Contractors to conduct RD&D projects under the Environmentally Preferred Advanced Generation (EPAG) area of the PIER Program.

Recent power supply shortages and blackouts in California underscore the need for reliable, cheap, distributed generation technologies. Advanced Reciprocating Internal Combustion Engine (ARICE) systems must be developed now to meet this need to help avoid any future blackouts in California. The biggest hurdle to the wide spread use of reciprocating internal

I. Introduction, Continued

combustion engines in California today is their high NOx emissions relative to other cleaner technologies. More recently, there have been concerns about the diesel engines related particulate matter (PM10) emissions and the associated health risks. Therefore, it is imperative that the NOx and PM10 emissions of reciprocating internal combustion engines be reduced through a concerted effort for the development of cleaner Advanced Reciprocating Internal Combustion Engine (ARICE) systems.

Proposals are being solicited to accelerate and extend research, development, demonstration, and testing of promising technologies for ARICE systems. Proposed projects must integrate these technologies in a complete ARICE system which must do one or more of the following:

- meet or exceed current and future California atmospheric emissions requirements and have other desirable environmental attributes;
- improve fuel-to-electricity conversion efficiency;
- increase the overall energy use efficiency through combined heat and power systems;
- lower or maintain current capital cost, installation cost, operation and maintenance cost, and/or life cycle costs;
- enhance reliability, availability, maintainability, durability, and usability;
- promote development of clean (alternative, renewable, and distillate) fuels;
- have multi-fuel use capabilities;
- support integration and aggregation of distributed (both mobile and stationary) generation and on-site generation with the power grid;
- in general, lead to the adoption and use of the improved ARICE technologies within California.

There are predictions that as much as 20 percent of new electricity generation capacity through the year 2020 will be in the form of distributed on-site generation. The Commission desires that these installations provide economic, environmental, efficiency, reliability and power quality benefits that equal and exceed those provided by the utility grid system linked to centralized generation. California Air Resources Board (CARB) is developing certification standards for distributed technologies including reciprocating internal engine gensets as required by SB 1298. These standards are expected to be effective from January 1, 2003.

The EPAG technologies that are the focus of this RFP give electricity end-users new options to provide on-site supply of electricity as an alternative to, or in parallel with, conventional utility grid electricity. The deployment of EPAG technologies will provide greater flexibility and control in the delivery of electricity, heat, and shaft power to industrial, commercial, and residential operations.

4. What Is the Scope of Acceptable Projects?

This solicitation is open to a wide spectrum of projects that may range from fundamental materials science studies or manufacturing process development, to pre-commercial demonstrations related to ARICE systems, component development and system integration.

The proposed project must deliver an integrated ARICE system.

Proposals for RD&D projects to advance science and technology are desired in the areas listed below (Various technology developments identified are for example only):

1. Engine

- Ignition system multi-point ignition, laser ignition, compression ignition, industrial grade ignition, zero maintenance, high pressure fuel injectors, improved spark plugs, and homogenous charge compression ignition (HCCI)
- Materials and friction reduction novel component coatings, carbon/carbon composites, ring pack design, advanced lubricants and coolants, novel friction reduction
- Turbochargers advanced turbo chargers, materials, after coolers, A/F mixing devices, turbo compounding, super-chargers, inter-cooling
- Advanced combustion computer modeling, combustion models for engine knock, pre-chamber and chamber design, advanced combustion systems
- Advanced fuel injection water injection, direct injection, high pressure fuel injectors
- Advanced sensors and controls advanced electronic engine controls, NOx sensors, in-cylinder pressure measurement, advanced diagnostics
- Novel concepts advanced lean-burn natural gas, common rail fuel systems, higher brake mean effective pressure (BMEP), valves, recycle crankcase ventilation, parasitic load reduction & combustion system, cam-less engine

2. Fuels and Lubricants

- Fuel pretreatment Fisher-Tropsch diesel
- Petroleum fuels oxygenated petroleum based diesel (alcohols, Dimethoxy Methane), dimethyl ether (DME), advanced petroleum based fuels
- Gaseous fuels hydrogen enriched natural gas, CNG, LNG, LPG
- Alternative fuels bio-fuels, syngas, landfill, digester gas, etc.
- Low ash low sulfur lubrication oil

3. Exhaust Aftertreatment

- NOx emissions novel sorbents for NOx control, NOx traps, selective catalytic reduction (SCR), non-selective catalytic reduction (NSCR), exhaust gas recirculation (EGR), including cooled EGR
- Particulate matter (PM) Emissions particulate traps, microwave regenerated PM filters, novel catalysts, active regenerated PM filters

For all projects, emissions will be reported in the following manner. For shaft power applications, the standard units of g/bhp-hr will be reported. For all remaining applications, standard units should be reported in both g/bhp-hr and lb/MW_eh.

For all projects, performance results should be developed using standard engine testing procedures as required by CARB and presented with performance curves. Three separate full range performance curves (zero loads to 100 percent rated full load) should be

I. Introduction, Continued

presented: 1) Engine; 2) Generator; and 3) Engine Genset, according to the proposed system application.

5. What are the Objectives, Targets and Stretch Goals for the EPAG Program?

In funding RD&D activities, the EPAG section of the PIER Program is seeking to advance the technical and market status of EPAG technologies so that installed systems achieve the following specific objectives:

- A cost of electricity that is competitive with grid-supplied electrical energy
- Low adverse environmental impact, especially low atmospheric emissions
- High reliability, availability, maintainability, durability, and usability
- Market connection.

Implied objectives include:

- High fuel-to-electricity conversion efficiency (both First and Second Laws of Thermodynamics) and high overall efficiency, in order to reduce the fuel cost component of electricity, global warming impacts, and the risk of fuel cost escalation
- Fuel flexibility
- Dispatchability

In view of the above EPAG objectives and the status of EPAG technologies, for the purposes of this RFP, the following Targets in Table 1 have been formulated. Note that the EPAG Targets are quantitative.

Table 1. Performance Targets for Solicitation								
Advanced Reciprocating Internal Combustion Engine Systems								
Parameter 2003 2005 2007 2010								
Efficiency								
Brake Thermal Efficiency	≥40%	≥42%	≥45%	≥50%				
Fuel-to-Electric Efficiency	≥38%	≥40%	≥43%	≥50%				
Overall Efficiency (CHP)	≥85%	≥85%	≥86%	≥88%				
Emissions - shaft power (g/bhp-hr)								
Oxides of Nitrogen (NOx)	≤0.15	≤0.15	≤0.015	≤0.01				
Carbon Monoxide (CO)	≤1.77	≤1.77	≤0.02	≤0.02				
Volatile Organic Compounds	≤0.3	≤0.3	≤0.006	≤0.006				
(VOCs)	20.01	20 O1	ZO 01	20.01				
Particulate Matter (PM10)	≤0.01	≤0.01	≤0.01	≤0.01				
Emissions – power generation (lb/MW	i .	10.7	10.07	10.00				
Oxides of Nitrogen (NOx)	≤0.5	≤0.5	≤0.05	≤0.03				
Carbon Monoxide (CO)	≤6.0	≤6.0	≤0.08	≤0.08				
Volatile Organic Compounds (VOCs)	≤1.0	≤1.0	≤0.02	≤0.02				
Particulate Matter (PM10)	≤0.03	≤0.03	≤0.03	≤0.03				
Cost								
Complete Installed Cost (\$/kW _e)	≤800	≤750	≤700	≤600				
O&M Cost (\$/kW _e h)	≤0.06	≤0.05	≤0.05	≤0.04				
Availability & Durability								
Availability	≥88%	≥90%	≥92%	≥95%				
B10 Durability (hours)	≥8,000	≥9,000	≥10,000	≥12,000				
Mean Time Between Major Overhauls (hours)	≥35,000	≥40,000	≥45,000	≥50,000				

6. What is the Funding Level for this RFP?

A single proposal may request no more than \$3 million in PIER funding. Total available PIER funding for this solicitation is anticipated to be up to \$6 million. However, the total solicitation funding may be less than the \$6 million anticipated, based on the number of proposals achieving the minimum passing score.

A Bidder may submit only one proposal per project. However, a Bidder may submit multiple proposals if each proposal is for a different project.

7. What are the Match Funding Requirements?

Match funding is evaluated and scored as one of the evaluation criteria. The amount of match funding provided by Bidders will be evaluated and scored relative to the type and amount of estimated benefits. Care should be taken to provide match funding in amounts proportional to expected private benefits compared to public benefits generated by the program. In other words, projects providing a higher percentage of private benefits and lower percentage of public benefits should contribute a higher percentage of match funds. The ratio of match funding to PIER funding should reflect the ratio of private benefits to public benefits resulting from successful completion of the project. For additional

I. Introduction, Continued

information regarding match funding, see Section II, Proposal Format and Required Documents.

8. Is Equipment Purchase Allowed?

We recommend that you use your own funds as well as other sources of funds which would be considered match funds to procure and/or build equipment. If State funds are used to purchase or build equipment, the State retains ownership interest in the equipment. In order to avoid issues regarding ownership of equipment, Bidders are encouraged to not use PIER funds for equipment or \$5,000 or more worth of materials that will be used to construct a product or machine. See Attachment 7, Contract Terms and Conditions for specific requirements.

9. What is the State's Definition of Equipment?

An item that costs more than \$5,000 and has a useful life of more than one year falls into the equipment category; if under \$5,000, it is not considered equipment and would be budgeted in the materials category. If a single ARICE system costs less than \$5,000, the ARICE system would not be considered equipment and should be budgeted in the materials category. If items are purchased that have incremental costs of less than \$5,000 but when combined (the product) exceeds \$5,000, the items should be budgeted in the equipment category. If the product has been capitalized and exceeds \$5,000, it should be budgeted as equipment. Subcontractors/vendors providing equipment should be budgeted in the equipment category, not the subcontractor category. See RFP Attachment 7, Contract Terms and Conditions, paragraph 4. Definitions.

10. Is Repayment Required?

There are two options under this solicitation: PIER funds will be provided (a) with royalty payment provisions; or (b) through an exemption, without royalty payment provisions. Repayment is based on royalties once the Contractor generates gross revenues, or a subcontractor generates gross revenues that are paid to the Contractor.

Except as otherwise provided in the "Royalty Exemption Option" discussed below, all parties receiving funds from this solicitation will be required to repay one and one-half percent (1½%) of the sales price of each project-related product or right for fifteen (15) years from the first date of sale, as further defined in the PIER contract terms and conditions (RFP Attachment 7). Alternatively, there is a "Buyout Option" of two (2) times the amount of the PIER funding award, payable within two (2) years from the date royalties are first due.

The Commission has previously negotiated the handling of repayment requirements for PIER RD&D contracts with the University of California.

11. What is the Repayment Exemption?

At the discretion of the Commission, a research project may be exempted from the general royalty requirements of this solicitation if:

• The research project in question is primarily expected to produce new knowledge and/or understanding of the subject under study, rather than any commercial application of that knowledge, within the next 10 years (e.g., basic research); and

• The Bidder agrees to place all intellectual property developed from the project into the public domain.

All Bidders are required to indicate their choice of royalty funding mechanisms. Bidders must complete and submit RFP Attachment 2, "Application and Program Information Form."

12. What is the Schedule for the RFP?

Key activities and dates for this RFP are presented below. This is a tentative schedule. Please call the Commission Contracts Office to confirm dates.

ACTIVITY	Action Date
RFP Release	December 7, 2001
First Pre-Bid Conference, Diamond Bar, CA	December 14, 2001
Second Pre-Bid Conference, Sacramento, CA	January 10, 2002
Deadline for Submittal of Questions	January 10, 2002
Distribute Questions/Answers and Addenda (if any) to RFP	January 17, 2002
Due date for Notice of Intent to Bid	January 31, 2002
Publishing deadline for DVBE Advertising *	February 7, 2002
Deadline to Submit Proposals	February 21, 2002
	5:00 p.m.
Interviews with Bidders (if necessary)	March 11, 2002
Posting of Notice of Proposed Award	March 29, 2002
Commission Business Meeting to approve contracts	May 15 and 29, 2002
Contract Start Date	July 1, 2002
Latest Contract Termination Date	March 31, 2006

^{*} The Proposal will be rejected if the first day of DVBE advertising is later than February 7, 2002.

13. Will There be an Opportunity to Meet with the Commission about the RFP?

Yes. There will be two Pre-Bid Conferences; participation in these meetings is **optional** but encouraged.

The Pre-Bid Conferences will be held at the dates, times and places listed below. Participation by prospective Bidders is optional. Please call (916) 654-4392 or refer to the Commission's website at www.energy.ca.gov to confirm the date and time.

Diamond Bar, CA	Sacramento, CA
December 14, 2001 (Friday)	January 10, 2002 (Thursday)
10:00 a.m. to 3:00 p.m.	10:00 a.m. to 3:00 p.m.
South Coast Air Quality Management District	California Energy
SCAQMD Auditorium	Commission
21865 E. Copley Drive	Hearing Room A, First Floor
Diamond Bar, CA 91765	1516 Ninth Street
	Sacramento, California
	95814
Telephone: (909) 396-3378	Telephone: (916) 654-4392

14. How Do I ask Questions about the RFP?

During the RFP process, questions or clarifications about this RFP must be directed to the Contract Officer listed in the following section. You may submit written questions up to the day of the last Pre-Bid Conference and you may ask questions at the Pre-Bid Conferences. Questions may be submitted in writing via mail, electronic mail, FAX, verbally and by phone. The questions and answers will be mailed to all parties who requested a copy of this RFP from the Commission Contracts Office and all that attended a Pre-Bid conference. The questions and answers will also be posted on the Commission's website at:

http://www.energy.ca.gov/contracts/index.html.

15. Who Do I Contact for Information Regarding the RFP? JUDITH EFHAN, CONTRACTS OFFICER

California Energy Commission 1516 Ninth Street, MS-18 Sacramento, California 95814

Telephone: (916) 654-4397 FAX: (916) 654-4423 E-mail: jefhan@energy.state.ca.us

Verbal Communication

Any verbal communication with a Commission employee concerning this RFP is not binding on the State and shall in no way alter a specification, term, or condition of the RFP.

II. Proposal Format and Required Documents

About This Section

This section contains the detailed technical and mandatory proposal format requirements, and the approach to be used by the Bidder for the development and presentation of proposal data. The format is prescribed to assist the Bidder in meeting State bidding requirements and to enable the Commission to evaluate each proposal uniformly and fairly. Format instructions must be adhered to, all requirements and questions in the RFP must be responded to, and all required data must be supplied.

16. Is there a limitation in the Proposal Format and Length?

Proposals must be presented in a clear, complete, and concise manner. Volume II and optional Volume III should be kept to a combined maximum of forty (40) pages of text (exclusive of the Work Statement, budget spreadsheets, resumes, and attachments offered by the Bidder), if possible. Bidders are strongly encouraged to limit the length of their proposals, while adequately covering the proposal requirements.

Bidders who believe that supporting documentation or additional explanations beyond the forty (40) page limit are needed may attach such information in appendices to their proposal. Appendices are appropriate for items such as calculations of public and private benefits and associated discussions, calculations of performance enhancements resulting from successful completion of the proposed work, and summaries of accomplishments from previous RD&D projects that are relevant to the proposed project.

17. What is the Required Format for a Proposal?

All proposals that are submitted under this solicitation must be typed or printed using a standard 11-point font, singled-spaced and a blank line between paragraphs. Pages must be numbered and sections titled. Spiral or comb binding is preferred. Colored photographs and colored graphs are discouraged.

Bidders **must submit** the original and 12 paper copies of Volume 1, Volume 2, and optional Volume 3. Submittals must be printed back to back.

Bidders **must also submit** electronic files of the proposal on CD-ROM or 100 or 250 MB zip diskette along with the paper submittal. Electronic files must be in Microsoft Word '98 and Excel Office Suite '97 formats.

Electronic files submitted via e-mail will not be accepted.

Organize your proposal as follows:

Volume 1 Administrative Section

Cover letter

Application and Program Information Form, RFP Attachment 2

Contractor Certification Clauses, RFP Attachment 3

Disabled Veteran Business Enterprise Participation, RFP Attachments 4.1, 4.2, 4.3, as applicable

Small Business Form, if applicable, RFP Attachment 5.0

Target Area Contract Preference Request Form, if applicable, RFP Attachment 5.1

Enterprise Zone Act Preference Request Form, if applicable, RFP Attachment 5.2

Local Agency Military Base Recovery Area Form, if applicable, RFP Attachment 5.3

Volume 2 Technical and Cost Section

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Section 1 Scientific and Technological Baseline

Section 2 Problem Statement

Section 3 Project Goals and Objectives narrative

ARICE System Performance Characteristics form, RFP Attachment 13

Section 4 Technical Approach and Probability of Success

Section 5 Market-Connected Benefits of Successful Completion of the Project

Section 6 Work Statement, RFP Attachment 8,

Deliverables, Due Dates and Gantt Chart, RFP Attachment 9

Section 7 Project Costs:

- □ PIER funding request narrative
- □ Match funding narrative
- □ Need for PIER funding narrative
- □ Project Budget forms:
 - Personnel Hourly Rates and Benefits, RFP Attachment 10 (C-1)
 - Fee Calculations, RFP Attachment 10 (C-2),
 - Detailed Task Budgets, RFP Attachment 10 (C-3)

Section 8 Skill and Experience

- □ Narrative description of skill and experience
- □ Key Personnel and Key Subcontractors form, RFP Attachment 11
- □ Resumes
- □ Customer References, RFP Attachment 12,

Volume 3 Confidential Information, if applicable

List of Confidential Information and Intellectual Property, RFP Attachment 14 Copy of Confidential Submittal

18. Is the Notice of Intent to Bid Required to Submit a Proposal?

Bidders are **encouraged** to submit a "Notice of Intent to Bid" (RFP Attachment 1) to the Commission by the date and to the address listed in Section I. The Notice may also be faxed to the Commission's Contracts Office at (916) 654-4423. This Notice is not binding on prospective Bidders, but will be used to aid the Commission in planning for the resources needed to evaluate proposals that are subsequently submitted. All Notices received by the Commission will be kept confidential until the Notice of Proposed Awards is posted.

19. What is Required in Volume 1 - Administrative Information?

The following is a list and brief description of the items (sections) that must be submitted in Volume 1 of each proposal. Bidders should carefully read this format and content information (along with the eligibility, completeness and feasibility criteria, and the evaluation criteria presented subsequently) to understand the relative importance of the information being requested in the proposal. The <u>following five (5) sections must be included or the proposal will fail the completeness screening</u> and will be rejected prior to technical evaluations.

1. Cover Letter

The Bidder must submit a cover letter on company letterhead signed by a person who has the authority to bind the Bidder to a contract for the proposed work.

2. Application and Project Information Form

Complete the Application and Program Information Form (RFP Attachment 2). Have a person who is authorized to sign contracts for your company sign the original of this form as the "Authorized Official." Note that this Application and Program Information Form, Item Number 7, Type of Entity or Business Organization, advises submittal of Articles of Incorporation, Partnership Agreement, and Fictitious Name Filing where appropriate.

3. Required Administrative Forms and Documents

A. Contractor Certification Clauses Package (RFP Attachment 3)

These are standard terms and conditions required to enter into a contract with the State of California.

B. Disabled Veteran Enterprises Participation Requirement (RFP Attachments 4.1, 4.2, 4.3)

Public Contract Code Part 10115, et seq., and Title 2, California Code of Regulations, Part 1896.62, require all Contractors who are not governmental agencies to pursue Disabled Veteran Business Enterprise (DVBE) participation in their project. Bidders must either have three- (3) percent DVBE participation in the project or must document a good faith effort to obtain DVBE participation. Failure to comply with this requirement by submitting complete DVBE forms in the proposal will result in immediate rejection of the bid and disqualification from evaluation, scoring and contract award.

Use RFP Attachments 4.1 through 4.3, and the instructions on the back of each form, to document DVBE participation and/or good faith efforts. It is important that Bidders thoroughly read the instructions provided on each DVBE form. The DVBE compliance process is as follows:

- ☑ If you are proposing to **meet the three percent (3%) participation** goals, complete and submit Attachment 4.1 and Attachment 4.2, with a copy of the DVBE certification letter(s) from by California's Office of Small Business Certification and Resources (OSBCR) and acceptance letter from the DVBE.
- ☑ If you are proposing to **partially meet the participation** goals, complete and submit RFP Attachment 4.1 and RFP Attachment 4.2, and attach a copy of the DVBE certification letter(s) from OSBCR, as well as RFP Attachment 4.3 to demonstrate the good faith effort you performed in your attempt to meet full participation. Your good faith effort must include advertising, which is explained in RFP Attachment 4.3 instructions.
- ☑ If you have **no DVBE participation** in your proposal, you must complete and submit RFP Attachment 4.3 to demonstrate the good faith effort you performed in your attempt to meet participation. Your good faith effort must include advertising, which is explained in RFP Attachment 4.3 instructions.
- ☑ If you or a subcontractor have **applied for DVBE certification**, complete the appropriate RFP Attachments as explained above, and include a copy of the application submitted to OSBCR. Refer to RFP Attachment 5 for instructions on how to apply for certification as a DVBE.

The forms to be used are:

- RFP Attachment 4.1 Prime Bidder's Certification of Disabled Veteran-Owned Business Participation
- RFP Attachment 4.2 List of Disabled Veteran-Owned Business Participation
- RFP Attachment 4.3 Documentation of Good Faith Efforts.

C. Small Business Preference (RFP Attachments 2 and 5.0)

California Government Code Section 14835 et seq., requires that a five percent (5%) preference be given to Bidders who qualify as a small business. To qualify for the small business preference points in the evaluation criteria, Bidders can be identified as a small business through either:

• The State of California, Department of General Services, Office of Small Business Certification and Resources (OSBCR) formal certification processes. The Bidder must include a copy of the approved certification letter or application for certification,

or

• The Federal Government, Small Business Administration (SBA) self-certification guidelines.

Bidders claiming small business preference must indicate either State of California or Federal Government qualification on RFP Attachment 2, Application and Program Information. Small Business points will be awarded only if the Bidder qualifies. A Bidder having a small business subcontractor qualified does not qualify the Bidder for the small business preference points.

20. What is Required in Volume 2 – Technical and Cost Information?

The technical merit of the proposal will be evaluated and scored on the Bidder's submittal in the Technical and Cost Section of the Proposal. The Bidder is responsible for submitting a technically complete and responsive proposal, and for presenting compelling and convincing evidence that the proposal is worthy of PIER funding. In scoring the proposal, the Commission evaluation team will not depend upon its prior detailed knowledge of ARICE system technological status, issues and markets, or any prior work that the Bidder has done for the Commission. Therefore, the Technical and Cost Section of the Proposal should be clear and concise and should address the submittal requirements completely.

The Bidder can assume that proposal evaluators are familiar with the electricity supply and demand situation in California, natural gas supply issues, electric utility restructuring, proceedings before the California Energy Commission and the California Public Utilities Commission related to distributed generation and interconnection, and interconnection issues and standards development. Therefore, the Bidder should <u>not</u> discuss issues such as the potential for ARICE systems to be used as Distributed Energy Resources (DER) and the roles that DER can serve in terms of system reliability and electricity supply, unless such discussions are integral to the scope of the proposal's work statement. The Bidder's discussions should always focus on the proposed project and expected results.

Bidders who believe that supporting documentation beyond that requested for Volume 2 is needed and will improve their technical score may attach such information in appendices to their proposal. Appendices are appropriate for items such as descriptions of work being done by the project team on related projects, the Bidder's quality control and quality assurance plans and procedures, calculations of public and private benefits and associated discussions, calculations of performance enhancements resulting from successful completion of proposed work, calculations of cost reductions resulting from successful completion of the proposed work effort, and copies of team publications relevant to the proposed work. Any item submitted in an Appendix should begin with a summary of the relevance of that item to the proposal and the evaluation criterion to which it applies.

Volume 2 must contain the technical and cost information that responds to the RFP, and with the exception noted below, should be presented in the order listed below. There must be a Table of Contents, with page numbers for each section, and an executive summary before Section 1. The sections in Volume 2 are organized into two groups, Sections 1 through 5, and Sections 6 through 8.

The purpose of the first five sections is for the Bidder to provide a compelling narrative or "story" that justifies PIER funding of the proposed project. The Bidder should demonstrate a clear understanding of the state-of-the-art of the technology, the goals and objectives of the project, the niche filled by the proposed project in ongoing technical developments, the

technical and economic significance of the results to be derived from successful completion of the project, the way in which these results will be accepted in the marketplace, and the public benefits to be derived by California electricity ratepayers. We have divided this "story" into the following topics:

- 1. Scientific and Technological Baseline
- 2. Problem Statement
- 3. Project Goals and Objectives
- 4. Technical Approach and Probability of Success
- 5. Market-Connected Benefits of Successful Completion of the Project.

The boundaries among the above topics may be somewhat arbitrary. There is no need to repeat information from one topic to the next. If rearranging the order of two or three of the above topics helps to present your project in a logical fashion, then that is acceptable.

The second group of topics describes the specific details of the Bidder's RD&D project, and must be presented in the following numerical order:

- 6. Work Statement and Deliverables, Due Dates and Gantt Chart
- 7. Project Costs, PIER Funding Request, Match Funding, the Need for PIER Funding and project budget forms
- 8. Skill and Experience

Below is a detailed description of the information the Bidder should present in the executive summary and Sections 1 through 8 of Volume 2.

Executive Summary (RFP Attachment 6)

Prepare an Executive Summary of the project, no longer than two [2] pages, which describes in summary form:

- The problem, barrier, or deficiency, amenable to an RD&D solution, that the proposed project will address in relationship to other current work in the field
- The technology or science being developed and advanced
- The unique products, services or levels of understanding that are expected to result from the project
- The technical approach and project steps that explain what will be done and how it will be done
- The quantitative goals and objectives of the project
- The overall project cost
- The amount of PIER funding being requested
- The amount, sources and nature of match funding
- The types, estimated amounts and timing of public benefits to be provided in California if the project is successful and if the results are incorporated into commercial products. California public benefits include, but are not limited to, the

annual amount of energy to be saved, the amount of electrical power price reduction expected, the tons per year of pollutants reduced, the installed capacity of ARICE generators in a specified future year, and/or the degree to which system reliability or power quality is enhanced.

• Estimated amounts of additional time and spending, if any, required to realize the public benefits that are being claimed for this project. Identify the types of entities that would be involved in these additional efforts.

1. Scientific and Technological Baseline

Describe the scientific and technological baseline, that is, the current state-of-the-art or the developmental status of the subject technology to be advanced. Relate the developmental status of the subject technology to the performance of ARICE systems, and to the relevant performance targets in Section I, Table 1.

Identify entities engaged in development of the subject technology. If no one else is performing any related development work, state that explicitly. Identify whether or not the proposed project duplicates or overlaps with other ongoing RD&D.

Emphasize past advances that the Bidder's team has made in areas relevant to the proposed work. Describe Bidder's relevant work, accomplishments, failures, ongoing work, RD&D projects, funding levels and funding sources. Be quantitative and rigorous in the discussion. List research papers, conference papers and presentations with full references, and summarize significant accomplishments that have been reported.

Within the technological baseline discussion it may be advantageous for the Bidder to discuss the status of ARICE systems in general so as to put the proposed work within the context of generating system development. The discussion could include factors such as developers and manufacturers, development status (whether laboratory scale, alpha testing, beta testing, commercially available), performance characteristics (efficiency, lifetime, emissions and other environmental characteristics including footprint and land requirement), manufacturing cost and selling price, and operation and maintenance costs.

The scientific and technological baseline described here must facilitate the evaluation of the proposed RD&D effort. That is, there must be continuity between the current status of the subject technology and the proposed effort.

2. Problem Statement

Describe the deficiencies that exist for the subject technology. The deficiencies should illuminate the question of *why* the proposed project should be done.

Identify and discuss the principal barriers, key unresolved issues, and knowledge gaps that hinder the development and widespread use of ARICE systems in California **that your proposal addresses**. Barriers may be grouped under the following categories, or other categories that the Bidder deems appropriate:

- Scientific and technological such as insufficient scientific understanding of relevant phenomena and processes, inadequate materials, high cost of materials, poor durability, low reliability, low power density, low energy density, lack of detailed engineering designs and design trade-off analyses, inadequate component development, high cost of fabrication techniques, lack of automated manufacturing, insufficient field testing, or insufficient field demonstrations.
- Market such as inadequate consumer knowledge or limited system supply and maintenance infrastructure. (Note: This RFP does not seek and will not fund proposals for market research, consumer education, commercialization, or market conditioning activities.)
- Institutional such as regulatory hurdles (e.g., atmospheric emission limitations) or lack of adopted interconnection standards.
- Environmental such as NOx emissions above those set by Air Resources Boards or Districts within California, excessive noise, or high water consumption.

Explain why these barriers have not been addressed by the marketplace or by other institutions.

Explain why the barriers should be addressed at this time. For example, place the proposed work into the context of the spectrum of barriers ARICE systems face regarding widespread deployment and adoption. Discuss any perspectives on issues that are of particular importance and **that are addressed by your proposal**. Be succinct and as quantitative as possible.

3. Project Goals and Objectives

At the beginning of this section, complete the following sentences. Please be succinct.

The goal of this project is to...(Complete the sentence with a brief description of the goal(s). Goals can be technical, economic or social. Please be brief, two to three sentences maximum.)

This project meets the PIER Goal of <pick one from the list below> by <fill in the blank>. (If applicable, this project also meets the secondary goal of <pick one from the list below> by <fill in the blank>.)

PIER Goals

- 1. Improving the Energy Cost/Value of California's Electricity
- 2. Improving the Environmental and Public Health Costs/Risk of California's Electricity
- 3. Improving the Reliability/Quality of California's Electricity
- 4. Improving the Safety of California's Electricity

The objectives of this project are to...(Complete this sentence with the objectives, which are things that will be measurable or knowable at the end of this project. Bidders should determine performance measures that are applicable to their projects.)

Examples of Performance Measures:

- . . . reduce the cost of electricity generation (or supply) by _____%.
- . . .increase the number of new technologies that are market-ready by _____<fill in the number>.
- ... increase the adoption by the market of specific technologies by ____%.
- ... increase the renewable technologies that are cost competitive by __%.
- ... increase the new energy systems that can use multiple fuels by _____%.
- . . . decrease end-use consumption in specific energy sectors.
- ... decrease the system impacts over current best practices by _____%.
- . . .increase the number of market-ready technologies that contribute to reduced risks of increased environmental/health impacts by _____<fill in the number>.
- . . .reduce the interruption frequency and duration per customer type per year by <fill in the number>.
- . . .increase the expected number of new technologies providing increased reliability/quality choices to consumers by _____<fill in the number>.
- . . .decrease the rates of injury and fatality associated with electricity generation/supply and usage by _____<fill in the number>.
- . . .determine the effectiveness of the XYZ process.

After completing the sentences above, discuss how and to what degree your proposed project contributes to realizing either the EPAG Objectives and Targets, or other significant contributions leading to EPAG technology improvement and market introduction and penetration in California. The EPAG Objectives and Targets for this RFP are given in Section I.

As a hypothetical example of meeting other significant goals, your project may not be able to reach an RFP capital cost target of $600/kW_e$ for an EPAG system by 2010, but your project may be able to reach a capital cost of $750/kW_e$ by 2003. If this higher capital cost is an improvement over the baseline technology, your project might offer public benefits equal to or greater than those offered by another proposed project that claims the ability to reach the hypothetical $600/kW_e$ cost target, but several years later.

Proposals for ARICE system projects **must complete and include RFP Attachment** 13, the ARICE System Performance Characteristics form. Discuss any tradeoffs that must be made in achieving improvements in one performance parameter while compromising improvements in one or more other parameters. Certain proposals, such as those for advanced materials and component development, may not be closely linked to the performance of a system. Such ARICE system proposals need not include the form; however, the proposal should state that the form is not applicable lest evaluators assume that the proposal is incomplete.

If your project is for a cogeneration system, identify the expected market applications. Discuss the match between the thermal and electrical outputs of the cogeneration system with the load profiles of the expected end use sites. Describe the manner in which the waste heat will be utilized. Show the calculations for the expected First and Second Law efficiencies.

List and describe the technical performance goals (improvements in technology or the state of knowledge that can be measured and quantified) for your proposed project. Your goals must be quantitative, verifiable and measurable by physical observation or testing. If the improvements that your project will make are not amenable to measurement, surrogate performance metrics that can be measured must be given. Describe the methodology(ies) that will be used at the completion of the project to determine if the goals or performance metrics have been achieved.

List and describe the technical objectives—desired conditions outside the project itself that will result from the success of the project.

4. Technical Approach and Probability of Success

Explain how the proposed work extends or complements prior RD&D. That is, continue the discussion given under "Scientific and Technological Baseline." Explain how and why the proposed RD&D is the next and necessary step.

Succinctly state the **specific advances** in science and technology that the proposed project will achieve, if successful.

Show how a successful project will make a significant difference in the status of the subject technology. Explain the manner in which, and the degree to which (be quantitative), the proposed effort will address and resolve the principal barriers, issues and knowledge gaps described in the Problem Statement.

Describe any proprietary market or technical information—not currently under your control or to be developed as part of this project—which will be necessary to complete the project. If such information is necessary, describe how it will be obtained. Describe any unresolved intellectual property issues.

Describe the level of risk associated with the project. Discuss the probability that the project will achieve its goals and objectives and that science and technology will be advanced. Discuss the technical viability of the proposed effort.

After answering the previous questions in this section, describe your technical approach. For the project as a whole and for each technical task, present the nature of the work that will be done, the underlying technical considerations, and the technical merit of the proposed project. Explain how scientific and engineering principles will be applied so as to achieve the proposed project's objectives and goals. Identify and describe any innovative or distinctive features of the approach. Explain why any innovative approach is expected to be more successful than prior approaches. Assess risks or potential problems that could prevent the task from being completed on time and on budget. Please use the following format which parallels the task listings in the work statement. This is the place for the detail behind and the rationale for your proposed activities. In contrast, the work statement is the place for the essential elements of the process you will use to complete the project.

Technical Approach

Overview

Task 2.1 (Name)

Task 2.2 (Name)

Task 2.3 - 2.n-2 (*Name*)

5. Market-Connected Benefits of Successful Completion of the Project

A key objective of the PIER program is to develop energy products or services that are connected to the market, that is, those that will be installed, so that they can produce public benefits for California's electricity ratepayers. Through this solicitation, the Energy Commission is seeking worthy, fully integrated, state of the art, almost market-ready ARICE systems capable of providing immediate market-connected benefits to California's electricity rate-payers.

Your discussion of market connected benefits should be limited to less than two pages; we are not requesting an exhaustive market study. However, if a market study already exists and is particularly relevant, please provide its reference.

Describe the expected outcomes—the effects on ARICE system stakeholder communities—if your proposed RD&D project is successful. Identify the beneficiaries and users of the scientific or technological knowledge expected to be gained.

Assume that your project is successful. Describe a plausible scenario leading to commercial introduction of an economically viable ARICE generating system. Estimate the time and expense required to reach this point. Estimate the timeframe under which the economic benefits will accrue. Describe any additional activities, beyond those in the Work Statement, that must be taken to achieve these benefits. State any assumptions made in estimating the benefits, and justify the bases for the assumptions.

This discussion should (1) identify the specific market(s) for products or services resulting from the RD&D efforts, (2) estimate the size of that market, and how much of that market exists in California, (3) provide an overview of the pathway(s) by which such products or services will ultimately enter the marketplace, (4) identify infrastructure changes necessary for commercialization including changes to regulations (environmental, safety, permitting), (5) identify people or entities that can aid in facilitating market entry and (6) describe important incentives these entities will have to commercialize the product.

Demonstration projects should be closely connected to the market, while fundamental research projects may have a less quantifiable market connection and less likelihood to provide immediate market-benefits. If your project is for a demonstration or test of a complete ARICE electricity generating system, clearly identify the market segments (residential, commercial, industrial by SIC codes) and service (ancillary services, baseload, peaking, back-up) being targeted. Discuss the match between the output and duty cycle of the generating system and the host load.

Based on the market(s) that you believe will use the results your successful project, estimate the public and private benefits that will accrue. Categories of benefits include but are not limited to, improved emissions, improved fuel conversion efficiency,

reduced cost of manufacturing, and more reliable and durable components. The benefits must derive from the project objectives and goals and be limited to the markets you expect to reach.

Distinguish between the <u>public</u> benefits (especially those to the California electricity ratepayer) of the proposed project, and the <u>private</u> benefits, including those to the Bidder. Apportion benefits between the public and private sectors. Compelling arguments justifying the apportionment should be made if most of the benefits are claimed to be public.

Describe any expected patentable ideas or royalty payments.

Note that effective January 1, 2003, all distributed (electricity) generation technologies in California shall be either (1) certified for use by the California Air Resources Board (CARB) and exempted from district permitting requirements, or (2) permitted by a district. Emissions shall be made equivalent to the level determined by CARB to be the best available control technology for permitted central station power plants in California. (SB 1298 [Bowen], Health and Safety Code Sections 41514.9 and 41514.10). If your project results will not meet these emission requirements, discuss why non-conformance of the system being developed is appropriate. Up to date and specific details on CARB's implementation of SB1298 can be found at http://www.arb.ca.gov/dg.

6. Work Statement and Schedule

The Work Statement shall:

- Be consistent with the proposal's problem statement, objectives, goals and technical approach.
- Contain appropriate detail and clarity to be incorporated directly into a contractual agreement.
- Contain a Sequence of Tasks.
- Contain a Schedule.

Sequence of Tasks

This shall include:

- A description of each task in the order in which you expect the work to be done. Instructions and examples are shown below, and the work statement template is contained in RFP Attachment 8.
- If your project is for a demonstration, or if your project involves testing, one of the tasks should be Test Plan preparation. The Test Plan should include considerations such as the number of hours of operation, the thermal cycling schedule, the type of monitoring to be performed, the manner in which data will be analyzed and reported, and a Quality Control and Quality Assurance Plan to assure data validity. A Critical Project Review generally will be conducted at the conclusion of this task and prior to hardware testing.

- If your project is for a demonstration and if the demonstration is to be grid-connected, or will develop hardware for grid-connected applications, discuss the degree to which the demonstration will comply with both Supplemental Recommendation Regarding Distributed Generation Interconnection Rules P700-00-014, and Distributed Resources Interconnected with Electric Power Systems, Institute of Electrical and Electronics Engineers (IEEE) Publication P1547(available at www.ieeeusa.org)
- If your project is for the pre-commercial demonstration of a generating system, pre-installation system testing by the manufacturer or system integrator should be one of the tasks.
- A **Technology Transfer Plan**. The objective of the plan is to make the knowledge gained, experimental results, and lessons learned readily available to decision-makers. The plan must explain how the deliverables from the other tasks will be distributed and how it will be made available to the public. The level of detail expected is least for research-related projects and highest for demonstration projects.
- A **Production Readiness Plan**, **if applicable**. Projects that will lead to the mass manufacturing of developed hardware within the next five years should also include a task addressing production readiness. The Production Readiness Plan should consider the following:
 - Identification of critical production processes, equipment, facilities, personnel resources, and support systems that will be needed to produce a commercially viable product;
 - Internal manufacturing facilities, as well as supplier technologies, capacity constraints imposed by the design under consideration, identification of design critical elements and the use of hazardous or non-recyclable materials. The product manufacturing effort may include "proof of production processes";
 - A projected "should cost" for the product when in production;
 - The expected investment threshold to launch the commercial product;
 - An implementation plan to ramp up to full production.

The degree of detail in the Production Readiness Plan discussion should be proportional to the complexity of producing the proposed product and its state of development. That is, Bidders who wish to use PIER funds to optimize more complex production manufacturing processes, or have manufacturing processes closer to being market ready, will be expected to provide a higher degree of detail on the manufacturing process than Bidders whose manufacturing process is relatively simple or relatively far from being market ready.

The work effort should be divided into a series of logical, discrete and sequential tasks. Technical tasks start with the number 2.1. Please use the following pattern for each technical task.

Task 2.1 Task Name

The goal of this task is to . . .

Successful completion of this task will be measured by . . .

This goal helps to achieve the project objectives by. . .

The Contractor shall:

- Active verb . . .
- Active verb . . .

Deliverables:

- 1st Deliverable
- 2nd Deliverable

Key Personnel:

Key Subcontractors:

Task 2.2 - 2.n-2

(Repeat the process as shown above)

Task 2.n-1 Technology Transfer Activities (See the Work Statement.)

Task 2.n Production Readiness Plan (See the Work Statement.)

Description of the Contents for Each Section:

Task 2.1 (*Insert Task Name*)

The goal of this task is to . . . (Complete the sentence by inserting a **brief** description that identifies the expected result(s) and accomplishments for this task. The description should be 2 to 3 sentences maximum. Use a consistent naming convention throughout the work statement. For example, the name "photovoltaic system" is not the same as the name "solar electric generation alternative." Pick one name and stick with it throughout.)

Successful completion of this task will be measured by...(Complete the sentence by listing the performance measure(s) or other criteria that will be used to evaluate the results and to determine to what degree the goal was achieved.)

Meeting this goal helps to achieve the project objectives by... (Complete the sentence.)

The Contractor shall:

- (*Insert verb in active tense*)...(*Complete the sentence*.)
- (*Insert verb in active tense*)...(*Complete the sentence*.)

(List each individual activity with a separate bullet and begin each bullet with a verb to continue the sentence beginning with "The Contractor shall." Organize activities in the

order in which they will occur. A bullet needs to appear before each activity. Use this section to describe the essential elements of **the process** you will use to complete the project. In contrast, the Technical Approach Section in your proposal is the place for **the detail behind and the rationale for** your proposed activities.

The contents of each deliverable shall also be described in this section. Only the names of each deliverable shall appear in the "Deliverables" section. Use exactly the same name to identify a deliverable (report, data set, project plan, etc.) in the activity and in the list of deliverables. See List of Different Types of Technical Deliverables for example language for each type of deliverable. A bullet needs to appear before each deliverable.

Deliverables are products that incorporate the knowledge and understanding gained by performing the activities and that are submitted to the Commission for review, comment and approval. Deliverables include, but are not limited to, written reports that describe methods, test plans, results of testing, analysis of data, conclusions, and recommendations for future study, workshop agendas and summaries, description and photographs of equipment/product developed, summaries of advisory group meetings, computer software with written instructions for data input and use of the software, if intended for public or Commission use, and production prototypes. The sum of the deliverables should be sufficiently detailed to be of use to stakeholders and other researchers. The level of detail should be sufficient for an observer to assess whether the project objectives and goals have been successfully met.

Deliverables:

- 1st deliverable (name only)
- 2nd deliverable (name only)

(List deliverables using the same name and in the order that they appear in "The Contractor shall" section. Only the deliverable name should be listed here. The contents of each deliverable shall be described in "The Contractor shall" section.)

Key Personnel:

John Doe

(Name of key person for this task that works for the prime contractor. If none, state none.)

Key Subcontractors:

- Davis Construction
- Susie Smith, Perfect Turbines

(Name of key company or name of key person at key company for this task. If none, state none.)

List of Different Types of Technical Deliverables (These are examples, which you may modify for use in your project. You may create other deliverables as needed, but please adhere to the patterns shown.)

1. Notification Letters

•	Provide a Notification Letter regarding, to the CEC
	contract Manager. (Give it a unique name based on the content and the project.)
	The letter shall include but not be limited to written documentation that the
	is ready for (testing, viewing, submission for certification,
	etc.) and the date such (testing, viewing, submission for certification, etc.) shall
	begin, and shall include photographs.

Deliverables:

Notification Letter regarding ________

2. Test Plans

- Prepare the draft ______ Test Plan. (Give it a unique name, such as the Project Title Test Plan. Test plans and testing procedures should be described in detail including factors such as instrumentation, data collection, data analysis, statistical analyses, and performance curves. Test results shall include relationships among performance, efficiency, emissions, temperature, pressure and all other parameters that qualify and quantify the subject technology.) The draft test plan shall include, but not be limited to:
 - a description of the process to be tested
 - the rationale for why the tests are required
 - predicted performance based on calculations or other analyses
 - test objectives and technical approach
 - a test matrix showing the number of test conditions and replicated runs
 - a description of the facilities, equipment, instrumentation required to conduct the tests
 - a description of test procedures, including parameters to be controlled and how they will be controlled; parameters to be measured and instrumentation to measure them; calibration procedures to be used; recommended calibration interval; and maintenance of the test log
 - a description of the data analysis procedures
 - a description of quality assurance procedures
 - contingency measures to be considered if the test objectives are not met
- Submit the draft test plan to the Commission Contract Manager for review and comment. Once agreement on the draft test plan has been reached the final test plan shall be submitted to the Commission Contract Manager for written approval, which shall be provided within 5 working days of receipt of the final test plan. Key elements from the test plan shall be included in the Final Report for this project.

Deliverables:

•	Draft	Test Plan
•	Final	Test Plan

3. Interim Reports (*This applies to all deliverable reports. Examples include task and subtask reports, test reports, data sets, databases and computer model development*

or application. Monthly reports and the final report are treated separately as shown in the Work Statement.)
• Prepare the draft Report (Give it a unique name, such as the ABC Test Report or 123 Database. If an interim report is based on earlier work in this project, then the titles should relate to each other. After the title insert a description of the deliverable.) This report shall include, but not be limited to, the following: (List the elements of the report in separate bullets.)
For example, if the Interim Report is a Test Report, use the following description: The Test Report shall include, but not be limited to, the following: the test plan test results analysis conclusions recommendations photographs as appropriate. (add additional bullets specific to the project)
For example, if the Interim Report is a Task or Subtask Report, use the following description: The Task or Subtask Report shall include, but not be limited to, the following: • the goal of the task or subtask; • the description of the approach used; • list of activities performed; • description of the results and to what degree the goal was achieved; • significant issues encountered and how they were addressed; • a discussion of the implications regarding the success or failure of the results, and the effect on the budget and the overall objectives of the project.

- photographs as appropriate.
- (add additional bullets specific to the project)
- Submit this draft ______Report to the Commission Contract Manager for review and comment. Once agreement on this draft report has been reached, the final version shall be submitted to the Commission Contract Manager for written approval, which shall be provided within 5 working days of receipt of the final version. Key elements from the final version of this report shall be included in the Final Report for this project.

Deliverables:

•	Draft		Test	(Task,	Database,	etc.)	Report
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• Final _____ Test (Task, Database, etc.) Report

4. Use this pattern for reports that will be discussed at a Critical Project Review.

- Participate in the (1st, 2nd, etc) Critical Project Review.
- Modify this draft document in accordance with comments received during the Critical Project Review. The final version of this document shall be submitted to the Commission Contract Manager within 10 working days after the Critical Project Review. The Commission Contract Manager shall send written notification of approval to the Contractor within 2 working days after receipt. Key elements from this document shall be included in the Final Report for this project.

Deliverables:

- Draft _____ (Report, Test Plan, etc)
- Final _____ (Report, Test Plan, etc)

5. Bills of Materials or Equipment Lists

- Prepare a Bill of Materials (or Equipment List) for ______. (*Give it a unique name.*) This document shall include but not be limited to:
 - a description of each item
 - test protocols and codes applicable to each item
 - cost estimates or bids for each item

Deliverables:

Bill of Materials (or Equipment List) for_______

Examples of Technical Task Descriptions

Example 1 (Note the Critical Project Review.)

Task 2.1 – Identification of Analysis Parameters and Required Data Layers

The goal of this task is to finalize the specific data variables and ranking methodologies needed for the project.

Successful completion of this task will be measured by having an approved ranking methodology.

Meeting this goal helps to achieve the project objectives by providing the ranking methodology that will be used for the remainder of this project.

The Contractor shall:

- Attend meetings to identify, prioritize and rank factors associated with identifying strategic locations for installing renewable distributed generation systems:
 - Electricity system conditions (T&D hot spot identification and performance characteristics)
 - Renewable resource availability and amounts
 - Environmental characteristics (e.g., air quality conditions, landfill capacities, etc.)
 - Socioeconomic characteristics (e.g., unemployment, number of small businesses, etc.)
 - Energy use information for large energy users
 - Other public benefit information (e.g., high-risk wildfire areas, etc.)
- Prepare the draft Methodology for Ranking and Manipulating Data Report. This document shall be submitted to the Commission Contract Manager for review at least 15 working days prior to the first Critical Project Review. This document will be one of the main topics for discussion at the Critical Project Review during which the Commission Contract Manager and the contractor may decide to identify additional data development or analysis parameters to meet objectives of this contract. This document shall include, but not be limited to the following:
 - the goal of the task or subtask;
 - the description of the approach used;
 - list of activities performed;
 - description of the results and to what degree the goal was achieved;
 - significant issues encountered and how they were addressed;
 - a discussion of the implications regarding the success or failure of the results, and the effect on the budget and the overall objectives of the project.
 - photographs as appropriate.
- Participate in the Critical Project Review.
- Modify this draft document in accordance with comments received during the Critical Project Review. The final version of this document shall be submitted to the Commission Contract Manager within 10 working days after the Critical Project Review. The Commission Contract Manager shall send written notification of approval to the Contractor within 2 working days after receipt. Key elements from this document shall be included in the Final Report for this project.

Deliverables:

- Draft Methodology for Ranking and Manipulating Data Report
- Final Methodology for Ranking and Manipulating Data Report

Key Personnel:

John Doe

Key Subcontractors:

Davis Construction

Example 2 (Note the subtask numbering convention.)

Subtask 2.3.5. Comparison of Distributed Generation Option with Conventional T&D System Solutions, and Develop Overall Conclusions and Recommendations

The goal of this subtask is to compare the potential T&D system benefits to be gained from using the evaluated DG technologies.

Successful completion of this task will be measured by having a report that compares the system benefits and by having a spreadsheet that enables manipulation of the comparison variables.

Meeting this goal helps to achieve the project objectives by providing the basis for making the recommendations in the final report.

The Contractor shall:

- Prepare the draft Methodology and Assumptions Comparison Report. This shall include, but not be limited to, the following:
 - the goal of the task or subtask;
 - the description of the approach used;
 - list of activities performed;
 - description of the results and to what degree the goal was achieved;
 - significant issues encountered and how they were addressed;
 - a discussion of the implications regarding the success or failure of the results, and the effect on the budget and the overall objectives of the project;
 - photographs as appropriate;
 - an estimation of the impacts of DG on T&D system reliability, capacity, deferral or avoidance of system upgrades and power quality. The method developed will be specific to the DG system size and the type of T&D system issue in the hot spots evaluated in the task above.
 - evaluation of the T&D system variables including system reliability, capacity, deferral or avoidance of system upgrades and replacement and power quality.
- Submit the draft Methodology and Assumptions Comparison Report for review and comment. Once agreement on this draft report has been reached, the final version shall be submitted to the Commission Contract Manager for written approval, which shall be provided within 5 working days of receipt of the final version. Key elements from the final version of this report shall be included in the Final Report for this project.
- Prepare the draft Renewable Conventional Comparison Spreadsheet Report. This report shall include, but not be limited to, the following:
 - the goal of the task or subtask;
 - the description of the approach used;
 - list of activities performed;

- description of the results and to what degree the goal was achieved;
- significant issues encountered and how they were addressed;
- a discussion of the implications regarding the success or failure of the results, and the effect on the budget and the overall objectives of the project;
- photographs as appropriate;
- a comparison of the economics of deploying renewable DG technology with conventional solutions to the T&D problems. This step will involve creating a spreadsheet to compare the economic, public and T&D system costs and benefits of specific DG applications with those of T&D system upgrades and replacements.
- Submit the draft Renewable Conventional Comparison Spreadsheet Report to the Commission Contract Manager for review and comment. Once agreement on this draft report has been reached, the final version shall be submitted to the Commission Contract Manager for written approval, which shall be provided within 5 working days of receipt of the final version. Key elements from the final version of this report shall be included in the Final Report for this project.

Deliverables:

- Draft Methodology and Assumptions Comparison Report
- Final Methodology and Assumptions Comparison Report
- Draft Renewable Conventional Comparison Spreadsheet Report
- Final Renewable Conventional Comparison Spreadsheet Report

Key Personnel:

• J. Wilson

Key Subcontractors:

H. Harvey

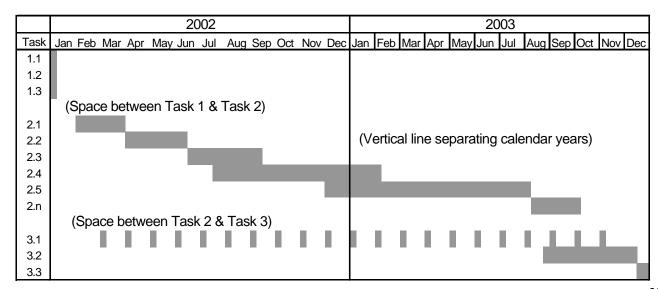
6. Deliverables, Due Dates and Gantt Chart

Complete RFP Attachment 9, Deliverables, Due Dates and Gantt Chart. This attachment contains two spreadsheets: 1) Deliverables, 2) a Gantt chart. Enter all of your task numbers first, then enter task names. Entering information in this manner will properly link the spreadsheets. Next, enter the deliverables in the order they appear in RFP Attachment 8, Work Statement, using the list of deliverables from each task. Use one line for each deliverable. Note that the spreadsheet contains Critical Project Reviews shown as examples in two tasks. Put the Critical Project Reviews where they belong in your project. Deliverables that will be discussed at the Critical Project Review should appear before the Critical Project Review and their final versions should appear after.

Name of Company or Organization						
Task Number	Task Name	Task Name Deliverable(s)		Planned Completion Date		
1.0	Project Start-Up Tasks					
1.1	Attend Kick-off Meeting	Kick-Off Meeting				
1.2	Document Match Funding	Cash/In-kind lists, commitment letters				
1.3	Identify and Obtain Permits	Permit plan or no permits required letter				
2.0	Technical Tasks					
2.1	Name of Task 2.1	1. Name of Deliverable for Task 2.1				
2.2	Name of Task 2.2	1. Name of Deliverable for Task 2.2				
2.3	Name of Task 2.3	1. Draft of Deliverable for Task 2.3				
	Critical Project Review					
	· ·	2. Final of Deliverable for Task 2.3				
2.4	Name of Task 2.4	1. Name of Deliverable for Task 2.4				
2.5	Name of Task 2.5	1. Name of Deliverable for Task 2.5				
2.6 Name of Task 2.6		1. Name of Deliverable for Task 2.6				
2.7	Name of Task 2.7	1. Draft of Deliverable for Task 2.7				
	Critical Project Review	,				
		2. Final of Deliverable for Task 2.7				
2.8	Name of Task 2.8	1. Name of Deliverable for Task 2.8				
2.9	Name of Task 2.9	1. Name of Deliverable for Task 2.9				
2.10	Name of Task 2.10	1. Name of Deliverable for Task 2.10				
3.0	Reporting Tasks					
3.1	Monthly Progress Reports	Monthly Progress Reports				
3.2	Final Report					
	Final Report Outline	Final Report Outline				
3.2.2	Draft Final Report	Draft Final Report				
3.2.3	Final Report	Final Report				
3.3	Final Meeting	Meeting Participation				
		Written Documentation of Meeting Agreements				

The second spreadsheet contains a Gantt Chart, showing the overall summary of the project schedule. The purpose of the Gantt chart is to visually display the time frames of the tasks in this project. Each chart shall contain the following common characteristics:

- The task numbers in the first column will be transferred automatically to the Gantt Chart so you do not need to enter them.
- Maintain blank rows between Task 1, Task 2 and Task 3.
- Modify the years to meet the time frame for your project. The template contains 4 years. You may add more if needed. Each calendar year is separated with a vertical line.
- The months are set up in 1/4-month increments so that your schedule can be accurate to the nearest week.
- Select the beginning month and year based on the expected start date for your project given the schedule for this RFP. Select the end-date based on the schedule for your project
- Task 1 and Task 3 contain the correct number of tasks. You may add or delete rows as needed in Task 2.
- Shade the areas representing the time frame for each task. The shading has been preset at gray 40%.
- The chart has been preset to print as a single landscape sheet.



An example Gantt Chart follows:

Not

e: It does not matter whether the Gantt Chart is created in Microsoft Excel or Microsoft Project. However, it must fit on one $8.1/2 \times 11$ page.

7. Project Costs

In a narrative but quantitative and definitive manner, discuss:

- The appropriateness of the total **project cost** considering the scope of work and the relevant expertise of the Project Team.
- The appropriateness of the amount of **PIER funding requested** for the project considering the anticipated absolute and proportional public benefits to California electric ratepayers.
- The amount of **match funding** that will be brought to this project. Discuss the appropriateness of the level of match funding considering the estimated and anticipated level of private benefits. Describe the nature of the match funding being offered by the Bidder and subcontractors.
- Why PIER funding for the project is <u>required</u>—that is, why this project cannot be funded within competitive or regulated markets. Potentially valid reasons for PIER funding include high risk/reward concerns, high financial cost, or the non-exclusive nature of the project results, which would result in financial gain for others rather than for the Bidder. Defend your reason.

Projects whose results are more likely to lead to products and services that can be commercialized in the near future will generally need a higher percentage of matching funds than projects whose results are further removed in time from commercialization.

Describe any extra value that the Bidder provides. For example, concisely explain how previous and current work by the Bidder, patents and patent applications, proprietary information, databases, unique facilities, specialized equipment, or specialized expertise will be leveraged into the proposed work.

Acceptable and Non-Acceptable Sources of Match Funding

Discuss the sources of match funding. For example, Bidder and/or team members, project partners, investors, lenders, equipment manufacturers, utilities, universities, government entities or others. Discuss whether match funding is in cash or in-kind services. In-kind contributions include donated labor hours, equipment or facilities.

If the match funding comes from a related project, describe the related project in detail. Distinguish between the scope of work for this proposal and the scope of work for the related project.

Staff time, laboratory space, equipment, and most property can count as match funds if they are fully dedicated to the project for the time the property or equipment is required by the contract, and if the value of the contribution is based on documented market values or book values and is depreciated or amortized over the term of the project using standard accounting principles.

Property and equipment that do not qualify as match funds include such items as standard office supplies and property or equipment that is part of the Bidder's normal business activity (desks, typewriters, telephones, computers, software, etc.).

In all cases, the Commission reserves the right to review and approve or disapprove the crediting of contributions and the amounts of those contributions as match funding.

Prior investments in the project do not qualify as match funds. Funding from other Commission projects or contracts does <u>not</u> qualify as match funding. The sources and amounts of match funding must be identified in the Bidder's budget.

Proposed match funding must be spent concurrently with PIER Program funds, and only on the project elements described in the proposal. Match funds can be spent once the Commission has approved an awarded contract at a scheduled Business Meeting. However, PIER funds cannot be spent until the Bidder signs the contract and the Department of General Services, Office of Legal Services approves the contract.

Project Budget Forms

The Prime Contractor and Major Subcontractors must submit information on all the Budget forms described below. (For purposes of this RFP, a "Major" Subcontractor is one that is requesting \$100,000 or more of PIER funds. "Minor" Subcontractors, i.e., those requesting less than \$100,000 of PIER funds, do not need to provide detailed budget forms and spreadsheets.)

Instructions for RFP Attachment 10 (C-1), Personnel Hourly Rates and Benefits

- List the names of Key Personnel, important personnel, and the name or job classification for other personnel. Include Minor Subcontractors and consultants if they are Key Personnel.
- For each person or job classification list: direct hourly rate (\$), fringe benefit rate (%), and fully-loaded hourly rate (\$) [hourly rate plus fringe benefits, overhead, G&A and profit, as applicable].

- If rates will change over the duration of the project, provide estimated rates for appropriate time periods.
- If rates or formulas will change if this project extends beyond the anticipated completion date, please provide estimated rates for one year past the anticipated completion date.

Instructions for RFP Attachment 10 (C-2), Calculation of Rates

You must include documentation in your cost proposal to support your General and Administrative rate and Overhead rate. If the Federal Defense Contracting Audit Agency (DCAA), any other governmental entity or private audit firm has audited and accepted your rates, please provide this documentation.

- Provide fringe benefit, overhead, G&A, and profit rates (%). Different types of overhead (e.g., direct overhead and indirect overhead) may be combined in a single column if they are applied to the same items. Change the column headings, if necessary, to match your chart of accounts. Profit cannot exceed 10% for the Prime Contractor and subcontractors.
- List the items to which you apply each type of overhead.
- Show the formulas you use to calculate billable charges for each of the listed expense items (the categories in the Exhibit C3, Detailed Task Budget spreadsheets). *The Prime Contractor can not apply profit to any subcontractor invoices*.
- If rates will change if this project extends beyond the anticipated completion date, please provide estimated rates for one year past the anticipated completion date.

Instructions for RFP Attachment 10 (C-3), Detailed Task Budgets - General

- The Prime Contractor and all "Major" Subcontractors must use the Excel workbook [Attachment 10 Detailed Task Budgets (C-3)] to present detailed budget information.
- Do NOT enter data in the blue cells they contain formulas. Insert additional rows if necessary, but check the subtotals in the blue cells to ensure that the proper range of cells is included in the calculation.
- Do NOT enter data in the last spreadsheet (Summary tab). This is the total project budget, which is calculated from data in the prior spreadsheets. The Summary spreadsheet is protected, but with no password. If you need to add tabs for additional technical tasks (and if you are experienced working with Excel), you can unprotect the Summary, add rows for the additional tasks, and correct the Technical Activity Subtotals.

Task Budgets - Spreadsheet Tabs

• Provide budget figures for the task levels indicated by the tabs in the workbook, i.e., Task 1.0, Task 2.1, 2.2, 2.3, ..., and Task 3.1, 3.2, 3.3.

- Task 1.1, Kick-off Meeting, is reimbursable by PIER. Budget for one or two people for technical and administrative discussions with PIER staff in Sacramento. Tasks 1.2 and 1.3 are not reimbursable by PIER.
- For appropriate (not all) Technical Tasks (2.1, 2.2, ...), budget for Critical Project Reviews, which are reimbursable by PIER. These may be in Sacramento or at your facility.
- For Task 3.2, the Final Report, budget for 1-2 months for your top technical person and/or best technical writer.
- Task 3.3, the Final Meeting, is reimbursable by PIER. Budget for one or two people for technical and administrative discussions with PIER staff, either in Sacramento or at your facility.

Detailed Budgets for Each Task

• **PERSONNEL** (**DIRECT LABOR**): List the names of Key Personnel and important personnel, and the names or job classifications for other personnel. With each name or job classification, include the number of labor hours for the task and the hourly salary.

Labor costs may be presented in either of two ways: (1) with hourly salary, fringe benefits, and overhead/G&A/profit on direct labor shown as separate entries, or (2) using fully-loaded labor rates, with no fringe benefits shown, and no overhead/G&A/profit on direct labor included in the overhead, G&A and profit entries. In the latter case, change the heading "Direct Labor" to "Loaded Labor".

The labor costs for each task must be consistent with the hourly rates in RFP Attachment 10 (C-1) and the formulas in RFP Attachment 10 (C-2).

- **FRINGE BENEFITS**: Indicate the total fringe benefits for the above labor costs. If fringe benefits are included in the hourly labor rates, enter "0."
- **TRAVEL**: List each trip (or category of trip), purpose of trip, and itemization of costs.
- **EQUIPMENT**: Itemize, with costs per item. "Equipment" means tangible, non-expendable items with an acquisition cost of \$5,000 or more, **and** a useful life of more than one year. "Equipment" also includes groups of items with individual costs less then \$5,000, which will be assembled into a single item with a value of \$5,000 or more and a useful life of more than one year. The CEC recommends that equipment be purchased with match funds from the Contractor or a Subcontractor to avoid the complications of State ownership of the equipment after the project.
- MATERIALS: Itemize, with costs per item. This includes all materials and supplies that will be exhausted during the task. "Materials" have a cost less than \$5,000 and/or a useful life of less than one year.
- **MISCELLANEOUS**: List and provide costs for other items that do not fall in any of the above categories.
- OVERHEAD, G&A and PROFIT: Indicate charges for overhead (direct overhead and indirect overhead may be aggregated), G&A and profit on the

above categories. These should be consistent with the formulas shown in RFP Attachment 10 (C-2).

• **SUBCONTRACTORS**: List the names of subcontractors and the amount of each subcontract. Identify DVBEs. Show the total G&A expense, if any, charged for subcontracts. This should be consistent with the formula shown in RFP Attachment 10 (C-2).

In your proposal, include the detailed budget for each task and the Summary budget. Shown below is a sample of budget information as it should be presented for each task in the Detailed Task Budget spreadsheets.

SAMPLE BUDGET

Name of organization				
Title of Project				
Technical Task 2.3				
Title of Task		Total \$	Match Funding \$	CEC Cost
Personnel (Direct Labor) (List personnel names and/or job classifications, with number of hours and hourly rate for each.)	Subtotals	16,600	5,000	11,600
(Name), Project Manager (50 hours @\$100)		5,000		3,000
(Name), Mechanical Engineer (200 hours @ \$50)		10,000	3,000	7,000
Machinist I (40 hours @ \$40)		1,600	0	1,600
				0
Fringe Benefits (for the above direct labor)		3,320	_	2,320
Travel (Describe types of travel expenses and number of trips.)	Subtotals	300	0	300
10 trips to project sites to monitor installation		000		
@ 30¢/mile @ approx. 100 miles per trip		300	0	300
				0
Equipment (List items with cost >\$5,000 and life > 1 year.)	Subtotals	50,000	50,000	0
5 pumps (describe type) at \$10,000 each		50,000	50,000	0
o pampo (accomo typo) at \$10,000 caen		00,000	00,000	0
Materials (List items and quantities.)	Subtotals	200	0	200
Electrical wire	Oubtotais	200	0	200
Electrical wife		200	<u> </u>	0
				0
Miscellaneous	Subtotals	0	0	0
			,	0
				0
	Subtotals of All Above Categories	50,500	50,000	500
Overhead, G&A, Profit	Subtotals	123,235	62,605	60,630
Overhead (Direct and Indirect)		70,420		50,420
G&A		35,210		10,210
Profit		17,605	17,605	0
Subcontracts (List companies/organizations.)	Subtotals	15,350	2,675	12,675
XYZ Corp., equipment installation contract		10,000	2,000	8,000
John Smith, Ph.D., consultant (10 days @ \$400/day)		4,000	0	4,000
G&A on subcontracts [if 5% of subcontracts]		1,350	675	675
				0
G&A on subcontracts				0
TOTALS for Task 2.3		209,005	121,280	87,725

8. Skill and Experience

Project Team Narrative

Name the Project Director who will be the Contractor's person who is primarily responsible for coordinating and managing the proposed project and describe each of the following:

- The Project Director's capabilities and experience in managing successful EPAGrelated RD&D projects
- The process the Project Director will take to effectively manage the proposed project to achieve project objectives and goals, including ensuring the development of quality products within the allocated budget and schedule
- How the Project Director will monitor progress and develop recommendations for adjusting the research direction and focus based upon the results of research.

Describe the capabilities and experience of the proposed project team:

- Identify the key RD&D personnel of the Contractor, key subcontractors, and key personnel of the key subcontractors.
- Describe the capabilities of the team members to conduct the technical work proposed, administer the research process, control costs, maintain project schedule, and if applicable, move the products into the marketplace, with reference to past experiences.
- Describe how the project team is uniquely or unusually well qualified to perform the proposed effort.

Key Personnel and Key Subcontractors

List Contractor's key personnel, subcontractor's key personnel and key subcontractors in the project, use RFP Attachment 11.

Briefly, "keys" are those individuals or subcontractors/vendors who would be difficult to replace and could impact the project progress/outcome. The Commission has approval rights if replacing these individuals or vendors. See RFP Attachment 7, Contract Terms and Conditions, paragraph 4, Definitions and 9, Contract Management.

Resumes

Provide resumes for the Project Director, the task leaders, key project team members and key subcontractors. Emphasize individual accomplishments in the resumes relevant to the proposed project.

Customer References

Provide customer references using RFP Attachment 12 format.

21. What can I put in Volume 3 – Confidential Information

Bidders are discouraged from submitting any confidential information regarding their proposed project under this solicitation. However, if the Bidder believes that certain confidential information would be important for the scoring committee to consider, or

would clarify the status of the development of the technology prior to any awarded contract (i.e., benchmarking for royalty purposes), Bidders may submit such specifically requested and identified confidential information as a separate volume to the Commission. Include at the beginning of this volume the Confidential and Pre-existing Intellectual Property form, RFP Attachment 14.

The Confidential Volume 3 must be packaged and sealed separately from the non-confidential Volumes 1 and 2. Volume 3 must accompany Volumes 1 and 2, must be clearly marked "Confidential Information for RFP 500-01-502", and must include the Bidder's name and the project title. Confidentiality will be determined by the Commission in accordance with the confidentiality regulations contained in Title 20, California Code of Regulations, Sections 2501-2505.

The Commission will not accept or retain any proposals that are submitted entirely in confidence. However, all proposals will be kept confidential until the Notice of Proposed Awards is posted.

What Types of Information Are Considered Confidential?

Consistent with its confidentiality regulations, and the California Public Records Act (Government Code Section 6250 et. seq.), the Commission generally will grant confidential treatment for information that is essential to understanding the proposal, clarifies the status of technology prior to contract work, or will be a contract deliverable. Examples include:

- Any information that is patent pending (until a patent has been approved), including patent application numbers
- Technical trade secrets (e.g., detailed technical drawings)
- Marketing/business trade secrets (e.g., energy use data for an individual commercial or industrial facility, pending strategic partnerships with manufacturers)
- Economic/financial trade secrets (e.g., income tax records).

Conversely, the Commission generally will not allow confidential treatment for certain other types of information. Bidders are cautioned against seeking confidentiality for the following types of information:

- Project descriptions/work statements (including task descriptions, schedule of deliverables and due dates)
- Proposed project budgets (PIER and match fund), including labor rates
- Disabled Veterans Business Enterprise information
- Names of employees, subcontractors and match fund participants
- Test plans and reports
- Progress reports
- Final reports.

The Commission will allow technical and business trade secrets to be reported in separate confidential addenda to test reports and final reports.

III. Evaluation Criteria

About This Section

This section explains the overall evaluation process and the technical and policy evaluation criteria. It describes how the proposals will be evaluated for completeness, eligibility and fundamental scientific feasibility. It also describes the evaluation stages, preference points, and scoring of all proposals.

The entire evaluation process from receipt of proposals to the posting of the Notice of Proposed Award is confidential.

A Bidder's proposal will be evaluated and scored based on its response to the information requested in this RFP. During the evaluation and selection process, the Commission may interview a Bidder either by telephone or in person at the Commission, and/or conduct a site visit at the Bidder's facilities for the purpose of clarification and verification of information provided in the proposal. However, these interviews may not be used to change or add to the contents of the original proposal.

22. Proposal Screening Process

Administrative, Completeness, Eligibility, and Feasibility Screening

All proposals will be initially screened for administrative, completeness, eligibility, and fundamental scientific feasibility. Proposals that fail the administrative, completeness, eligibility, and feasibility screening will not be evaluated further under this RFP.

A. Administrative Screening

If your proposal fails any of these items, it will be rejected immediately.

- 1. The proposal must be received at the California Energy Commission Contracts Office by the time and date indicated in Section I.
- 2. The proposal must not be marked confidential in its entirety. Proposals that are marked confidential in their entirety will be rejected from further evaluation under this solicitation.
- 3. The proposal must document legal compliance with either the "participation" or "good faith efforts" required pursuant to the Disabled Veteran Owned Business Enterprises (DVBE) program. Proposals not documenting compliance with the DVBE program will be rejected from further evaluation under this solicitation.

B. Completeness Screening

A proposal must include the contents described in RFP Section II and outlined on page 10 of this RFP or the proposal will fail the completeness screening and will be rejected prior to the technical evaluations. In particular, proposals will be screened for completeness on the basis of whether or not the proposal contains sufficient information to enable a useful evaluation to be conducted.

C. Eligibility Screening

To be eligible for possible funding under this EPAG solicitation, proposed projects must meet all of the following eligibility criteria:

- 1. The project must primarily address one of the eligible technologies discussed in Section I.
- 2. The project must carry out EPAG technology-related RD&D activities that will advance science or technology not adequately provided by competitive and regulated markets.
- 3. The project must be formulated so as to provide clearly identified benefits to California's electricity ratepayers.
- 4. Each proposal must be limited to a single, specific project. Individual proposals that request funding for multiple projects are not eligible for this solicitation, and will be rejected from further evaluation. The Commission has full discretion to determine whether a proposal is for a "project" (and therefore eligible for this solicitation) or a "program" (and therefore not eligible for this solicitation). A Bidder may submit separate proposals for different projects.

D. Feasibility Screening

Proposals will be evaluated for fundamental feasibility on the basis of whether the proposed project appears to comply with known scientific principles, and if not, whether the proposal contains a sufficiently sound explanation to justify proceeding with a further evaluation. Proposals that fail the feasibility screening will not be evaluated further under this RFP.

23. How Will Proposals be Scored?

Overview of the Evaluation Scoring Process

All proposals that pass the Completeness, Eligibility and Feasibility Screening will be further evaluated and scored for merit. The Commission may use Commission staff, staff of other agencies, private consultants or other designated representatives of the State to evaluate the proposals. All proposal evaluators and scorers will keep the contents of the proposals confidential. Both the technical and policy merits of each proposal will be evaluated.

A Commission Scoring Committee will evaluate and score proposals according to the evaluation criteria below. Eligible proposals will be ranked in descending order based upon total score. All proposals receiving a weighted score of ninety (90) points or more will be considered for possible funding. The Commission's RD&D Policy Committee will recommend how far down the ranked list of proposals scoring ninety (90) points or higher that will receive awards. The Committee's recommendations are presented at a Commission Business Meeting and can be approved as recommended, or the Commission can adjust the cut-off lines higher or lower in the ranking.

Projects above the Commission's adopted cut-off line cannot be "skipped-over" for funding. That is, a project with a higher score cannot be rejected while a project with a lower score is funded. Projects that fall below the Commission's adopted cut-off line will not be funded at this time.

If a successful Bidder decides to withdraw a proposal, or if a Bidder will not sign a proposed contract within the allotted time, the project can be disqualified from this award and the next highest-ranked project may be funded instead.

The Scoring Committee will give a score from zero to ten for each criterion described below, based upon the information provided by the Bidder's proposal. Each score will then be multiplied by a weighting factor to obtain the total points for that criterion. Scores will be assigned in accordance with the following guidelines:

Score	Proposal Response		
0	Not Responsive to the criterion		
1 - 2	Response is Minimal		
3 – 4	Responds only Marginally to relevant considerations under the criterion		
5 - 6	Responds Satisfactorily to Most relevant considerations under the criterion		
7 - 8	Responds Satisfactorily to All relevant considerations under the criterion		
9	Responds Completely, Accurately and Convincingly to All relevant considerations under the criterion		
	Response is Complete, Specific and Superior, both quantitatively and qualitatively		

24. What are the Technical and Policy Evaluation Criteria?

All proposals that pass the Completeness, Eligibility and Feasibility screening will be evaluated for merit based on the following technical and policy evaluation criteria:

1. The proposal accurately and completely describes the Scientific and Technological Baseline.

Weighting Factor: 1.0 Possible Points: 10

The proposal completely and accurately describes the current status of the subject technology to be improved by the proposed effort, including the relationship of the subject technology to the relevant performance targets in Section I.

All entities performing work on the subject technology are identified, and the nature of their efforts is described.

The Bidder describes in detail, with substantiation, its past and current work in the subject technology. Accomplishments (not just activities), successes and failures are described.

The Scientific and Technological Baseline description is in sufficient detail to determine where the proposed effort fits in the continuum of scientific and technological development.

2. The proposal identifies Barriers, Issues, or Knowledge Gaps amenable to RD&D solutions.

Weighting Factor: 1.0 Possible Points: 10

The proposal clearly identifies, describes and quantifies the significance of barriers, issues and knowledge gaps faced by ARICE systems that the proposed project will address.

The proposal identifies and describes the nature and relevance of scientific or technological deficiencies.

The barriers are directly relevant and important to California.

The proposal explains why these issues have not been addressed to date.

The proposal explains why resolving these barriers are appropriate now. Of the spectrum of issues, these particular issues are most timely.

3. The project's objectives and goals have the potential to fulfill EPAG Program Objectives and the RFP's Targets and Stretch Goals.

Weighting Factor: 1.0 Possible Points: 10

The proposal lists and describes quantitative or measurable technical performance goals, and relates these to the relevant EPAG Targets in Section I, Table 1.

For ARICE system projects, the Bidder has carefully completed the Performance Characteristics form (RFP Attachment 13) showing expected values of the key parameters for a generating system resulting from the proposed project and for the commercial product. Tradeoffs among the performance parameters are clearly discussed.

The proposal lists and describes clear and significant **technical** objectives.

The methodology to be used to determine if the project objectives and goals have been achieved is fully described.

4. The Bidder's Technical Approach is fully explained and provides a convincing a expectation of significant technical results.

Weighting Factor: 1.0 Possible Points: 10

The proposal describes the scientific and technical principles underlying the proposed work effort and the manner in which the scientific and engineering principles will be applied.

The specific expected advancements in science or technology are described.

The proposal explains how and why the proposed project is the necessary next RD&D step.

Reasons are described for expecting the proposed approach to succeed and advance the EPAG objectives, especially if alternative approaches have failed. The manner and extent to which the proposal will advance the Scientific and Technical Baseline are described.

The types of activities that will be performed are detailed.

Distinctive and innovative features of the approach are discussed.

Proprietary information necessary to complete the project is described, along with a plan for obtaining this information. Plans for resolving intellectual property concerns, if any, are described.

5. Successful completion of the proposed project will benefit California electricity ratepayers.

Weighting Factor: 2.0 Possible Points: 20

The proposal explains how the project results will fulfill market needs. References for available market studies are provided. Needed market studies are described.

The expected outcomes—the effects of the anticipated project results on the ARICE and stakeholder communities—are described. The specific users or market segments are targeted.

The proposal lists and describes quantitative or measurable **economic** impacts. Benefits such as reduced manufacturing costs, improved fuel conversion efficiency, greater reliability and durability are discussed and quantified, and related to the project objectives and goals.

The proposal lists and describes clear and significant economic objectives—desired conditions outside the project itself that will result from successful completion of the project. The potential California market size is described, as well as any significant market outside California.

Potential new environmental or safety issues associated with the expected new product are described.

The subsequent steps, the time required, and the approximate cost that must be taken to lead to a commercial product are discussed.

The market connection and timeframe for accrual of the economic benefits is discussed, along with any additional activities required to realize these benefits.

A clear quantitative distinction and apportionment is made between public and private benefits.

The proposal shows that the proposed project will develop products, technologies or services that address California electricity needs.

If the project develops hardware, details of the extent of its expected use and the basis for that judgment are provided.

If the project does not develop hardware, the expected adopters and beneficiaries of the knowledge are convincingly specified.

6. The Work Statement (RFP Attachment 8), Deliverables, Due Dates and Gantt Chart (RFP Attachment 9) and the details of the project implementation demonstrate that there is a high probability of project success.

Weighting Factor: 2.5 Possible Points: 25

The Work Statement demonstrates a clear, appropriate and complete effort.

The Work Statement is composed of a series of interconnected, logical, and discrete tasks.

Every task contains an objective. The objectives identify expected results and accomplishments.

Every task contains a description of activities. The activities are complete and clearly described. The description is in sufficient detail to be incorporated directly into a Standard Agreement.

The deliverables are appropriate, clearly identified, complete, and useful.

The Technology Transfer Plan is well defined and conceived and incorporates appropriate deliverables and methods for conveying project results to stakeholders.

The Production Readiness Plan describes the factors relevant to the production of a commercially viable product. (For projects that develop hardware).

For demonstration projects, there is a complete Test Plan.

For cogeneration projects, the market applications are identified, the cogeneration system is matched to the load, and thermodynamic calculations are included.

The Work Schedule reasonably appropriates time with respect to the sequence of tasks, time allocated per task, and the use of labor, equipment and facilities.

Appropriate milestones are identified. Critical Project Reviews are incorporated in the schedule at appropriate decision points.

7. The project cost, PIER funding request, match funding, and need for PIER funding are appropriate and consistent with the expected level of public benefits.

Weighting Factor: 2.0 Possible Points: 20

The proposal demonstrates that the total project cost is appropriate, considering: 1) the significance of the barriers being addressed, 2) the project's objectives and goals, and 3) the level of effort described in the Work Statement.

The proposal demonstrates that the amount of requested PIER funding is appropriate with respect to the level of public benefits.

The proposal demonstrates that the amount of match funding is consistent with the estimated level of private benefits. The types of match funding are acceptable.

The proposal explains why the proposed project is not adequately provided by the competitive or regulated markets, and would not occur in the absence of PIER funding.

The Bidder brings and will contribute extra value that was developed under prior projects.

8. The project budget information provided through RFP Attachments 10 (C-1), 10 (C-2) and 10 (C-3) is consistent with the work statement and itemize reasonable costs for personnel, subcontractors, equipment, operating expenses, fees, etc., for each task.

Weighting Factor: 1.5 Possible Points: 15

For the tasks described in the work statement, budgets indicate the total project budget, the PIER reimbursable budget, and the matching funds budget, indicating all sources of funding.

RFP Attachment 10 Budgets are itemized in sufficient detail to justify the expenditures by task. The budgets include the information described in Section II, regarding personal services, subcontractors, operating expenses, fees, and total expenditures.

The budget shows that key personnel will be committed to the project for the appropriate number of hours and functions to accomplish the activities described in the work statement.

9. The Project Director and the Project Team are well qualified to conduct the project.

Weighting Factor: 1.5 Possible Points: 15

The proposal demonstrates that the Project Director can successfully manage the project, control cost, maintain the schedule, and report results and accomplishments in an effective manner.

The proposal convincingly demonstrates, based on education, training and past experience, that the Bidder's team is capable of conducting all technical, administrative, and budgetary functions and responsibilities.

The Bidder/project team has the financial capability and skills to assure project completion.

The resume list is complete. The resumes show that the Project Director and team members have the demonstrated capabilities and specific experience to successfully complete the project.

10. Other significant factors that increase the project's merit

Weighting Factor: 1.0 Possible Bonus Points: 10

The following are examples of other significant factors that will be considered by the proposal evaluation team:

- The proposal shows that the technical approach is innovative or unique.
- The Bidder's performance on previous Commission contracts has been superior (e.g., contract goals and objectives either were achieved or the Bidder documented significant lessons learned, and the Bidder responded to Commission Contract Manager direction. Deliverables were complete and submitted on time and within budget).
- The proposed project is well-integrated with, and complementary to, other ARICE system RD&D efforts, such as those being funded by the US DOE, other federal government agencies, agencies from other states, the Electric Power Research Institute (EPRI), or the Gas Technology Institute (GTI).
- The degree to which the project contributes to a balanced PIER RD&D portfolio across technology types, levels of risk, and/or time to commercialization.

Summary of all evaluation scores

- Total possible points: 145, including bonus points
- Minimum passing score: 90.

25. Are There Non-Technical Preference Points?

A Bidder may qualify for up to four categories of preference points. Each qualifying Bidder with a score of 90 points or greater will receive the preference points for each applicable category. The sum of the Bidder's evaluation score and preference points will constitute the Bidder's total score. Proposals will be ranked based upon the Bidder's total score. Forms submitted for preference points should be included in Volume 1.

1. Small Business

Bidders who qualify as a State of California certified small business or who self-certify under the Federal Government statutes as a small business will receive five percent (5%) preference points based on the cost points received by the highest scored proposal, if the highest scored proposal is submitted by a business other than a certified small business. Instructions for becoming certified by the State of California as a small or disabled veteran owned business is contained in RFP Attachment 5.0.

2. Target Area Contract Preference Request

The Target Area Contract Preference Act (Government Code Section 4530 *et seq.*) provides five percent (5%) preference points to California-based companies that perform state contract work in a distressed area. Bidders should complete RFP Attachment 5.1 if they qualify for this preference. If you have further questions or need additional information on this matter, please contact the Office of Small & Minority Business (OSMB) at (916) 375-4941.

3. Enterprise Zone Request

The Enterprise Zone Act (Government Code Section 7070, et seq.) provides preference points as an incentive for business and job development in distressed and declining areas of the State. Bidders should review RFP Attachment 5.2 to determine if they qualify for this incentive.

4. Local Agency Military Base Recovery Act

The Local Agency Military Base Recovery Act (LAMBRA, Government Code Section 7118, et seq.) provides five percent (5%) preference points to California-based companies that perform State contract work in the LAMBRA. Bidders should review RFP Attachment 5.3 to determine if they qualify for this preference.

IV. Administrative Information

About This Section

This section provides Bidders with information on submitting a successful proposal, definitions of important terms, sources of information, how to submit a proposal, confidential information, grounds for rejecting a proposal, and other administrative details. Every technical proposal must establish in writing the Bidder's ability to perform the RFP tasks listed in the Work Statement.

26. Is There a Deadline For Submitting a Proposal to this RFP?

All copies of your proposal must be delivered to the Commission Contract Office during normal business hours and **prior** to the date and time specified in Section I. In accordance with Public Contract Code 10344, proposals received after the specified date and time are considered late and will not be accepted. There are no exceptions to this law.

27. How Should a Proposal be Packaged and Labeled for Submittal?

Bidders must submit the required number of copies of each volume, including if necessary, the Confidential Information. The original and copies of each volume must be in a separate, sealed envelope, labeled with the following information, depending upon the contents of the envelope:

- "Volume 1 Administrative Section"
- "Volume 2 Technical and Cost Sections"
- "Volume 3 Confidential Information"

All envelopes must further be labeled "Request for Proposal 500-01-502" and include the title of the proposal.

28. Is There a Preferred Method for Delivery of the Proposal?

A Bidder may deliver a proposal by:

- U. S. Mail
- Personally
- Courier service

Postmark dates of mailing, E-mail and facsimile (FAX) transmissions are not acceptable in whole or in part under any circumstances.

29. What is the Address for Delivery of Proposals?

Label and deliver your proposal, in a sealed package, as follows:

Person's Name, Phone # Bidder's Name Street Address City, State, Zip Code FAX #

RFP 500-01-502

Contracts Office, MS-18 California Energy Commission 1516 - 9th Street, 1st Floor Sacramento, CA 95814

30. How is Confidential Information Treated?

From the beginning of the solicitation process until the evaluation is complete and the Notice of Proposed awards is posted, the Commission is required to hold all information received from Bidders as confidential. However, proposals and all submittals will become public record after the Commission completes the evaluation and/or scoring process and the Notice of Proposed Awards is posted.

After the posting of awards,

- confidential materials submitted by <u>unsuccessful Bidders</u> will be destroyed and/or returned. The Commission will not retain confidential submittals from unsuccessful Bidders.
- confidential materials submitted by <u>successful Bidders</u> will be kept confidential, pending incorporation of confidentiality determination as part of the subsequent PIER contract as appropriate.

A complete application for confidentiality pursuant to Title 20, California Code of Regulations, sections 2505(a) and 2505(c)(2)(A) may be required prior to DGS approval of the contract at the option of the Commission. These confidentiality specifications and procedures are issued in accordance with Title 20, California Code of Regulations, section 2505(c)(2)(A).

31. What Types of Information Are Considered Confidential?

Consistent with its confidentiality regulations, and the California Public Records Act (Government Code Section 6250 et. seq.), the Commission generally will grant confidential treatment for information that is essential to understanding the proposal, clarifies the status of technology prior to contract work, or will be a contract deliverable. Examples include:

- Any information that is patent pending (until a patent has been approved), including patent application numbers
- Technical trade secrets (e.g., detailed technical drawings)
- Marketing/business trade secrets (e.g., energy use data for an individual commercial or industrial facility, pending strategic partnerships with manufacturers)

• Economic/financial trade secrets (e.g., income tax records).

Conversely, the Commission generally will not allow confidential treatment for certain other types of information. Bidders are cautioned against seeking confidentiality for the following types of information:

- Project descriptions/work statements (including task descriptions, schedule of deliverables and due dates)
- Proposed project budgets (PIER and match fund), including labor rates
- Disabled Veterans Business Enterprise information
- Names of employees, subcontractors and match fund participants
- Test plans and reports
- Progress reports
- Final reports.

The Commission will allow technical and business trade secrets to be reported in separate confidential addenda to test reports and final reports.

32. Are There Important Administrative Details I Should Know?

Disabled Veteran Business Enterprises

This contract is subject to a participation goal of three percent (3%) for certified California Disabled Veteran Business Enterprises as set forth in Public Contract Code Sections 10115, et seq. Refer to, RFP Attachments 4.1 – 4.3.

Bidders must provide DVBE qualifications, experience and duties to be performed under the Work Statement. Bidders shall provide DVBE project detail participation in the same manner as other subcontractors, including work descriptions, staffing and budget information.

Small Business Preference

Government Code Sections 14835, et seq., requires that a five percent (5%) preference be given to any Bidder who is certified by the State of California as a small business. A Bidder who claims this preference may include a copy of its approved certification form in the Bidder's proposal.

Under this RFP, Bidders may also qualify for the small business points under the Federal Government small business self-certification process.

Bidder's Cost

The Bidder is responsible for the cost of developing a proposal, and this cost cannot be charged to the State or the Commission.

33. Can the Commission Impose Conditions or Limits on Awards?

Yes. The Commission reserves the right to condition, modify or otherwise limit any and all PIER funding awards made pursuant to this RFP so as to avoid unnecessary duplication or overlap of efforts within a proposal or between proposals receiving PIER funding.

34. Can the Commission Cancel or Amend This RFP?

Yes, if it is in the State's best interest. The Commission reserves the right to do any of the following:

- Cancel this RFP
- Amend or revise this RFP as needed; or
- Reject any or all proposals received in response to this RFP.

35. How will I know if the RFP is Revised?

If the RFP must be changed or revised, the Commission will prepare and mail a formal written addendum to all parties who requested a copy of the RFP from the Commission Contracts Office. In addition, the addendum will be posted on the Commission's Web Site: www.energy.ca.gov/contracts and Department of General Services' Web Site: www.dgs.ca.gov/cscr. The RFP cannot be revised after proposal due date.

36. What If I Find an Error in this RFP Document?

If a Bidder discovers any ambiguity, conflict, discrepancy, omission, or other error in the RFP, the Bidder shall immediately notify the Commission of such error in writing and request modification or clarification of the document. Clarifications will be given by written notice of all parties who have obtained an RFP, without divulging the source of the request for clarification. The Commission shall not be responsible for failure to correct errors.

37. Generally, What are the Contract Requirements?

Term of the Contract

The term of the contract(s) will be from July 2002 to March 31, 2006. Typically, the duration of a project is shorter than the term of the contract.

Contract Terms and Conditions

Standard Contract Terms and Conditions are included in this solicitation (Section V, RFP Attachment 7, Terms and Conditions). It is the intention of the Commission to use these Standard Terms and Conditions in all contracts awarded as a result of this solicitation. The format may change for the signed contract but the terms will remain the same. The content of this RFP and the Bidder's proposal will be incorporated by reference into the final contract.

Contract Cancellation

The Commission reserves the right to terminate any contract awarded through this RFP by providing a 30 day notice to the successful Bidder.

No Contract Until Signed and Approved

The proposed contract between the Commission and the successful Bidder is not in effect until the contract is signed by all of the parties, which includes approval at a Commission Business Meeting, Bidder signature, Energy Commission signature, and approval by the Department of General Services, Legal Services.

Contract Amendment

A contract executed as a result of this RFP can be amended by mutual consent of the Commission and the Contractor. The contract may require amendment as a result of project review, changes and additions, changes in project scope, or availability of funding.

Audit

The Bureau of State Audits may audit a contract awarded under this RFP up to a period of three years after the final payment or termination of the contract.

Subcontractors

Any subcontractor the Bidder chooses to use in fulfilling the requirements of this RFP that is expected to receive more than ten percent (10%) of the value of the contract, must also meet all administrative and technical requirements of this RFP. The Bidder must provide a summary of each subcontractor's qualifications, including DVBE firms, experience and duties that would be performed under the Work Statement.

The Contractor is responsible for the quality of all subcontractor work, and may only replace subcontractors as specified under the Contract Terms and Conditions.

Universities

Separate terms and conditions have been negotiated with the University of California. Any university can use these Commission-approved terms in either the role of prime contractor or subcontractor. These terms and conditions are available by contacting the Commission Contracts Officer at (916) 654-4397.

Department of Energy (DOE) Laboratories

Separate terms and conditions have been negotiated with DOE Labs. DOE Labs can use these Commission-approved terms in either the role of prime contractor or subcontractor. These terms and conditions can be found at www.eren.doe.gov/stateagreements.

38. What If I Decide To Modify Or Withdraw My Proposal?

Withdrawal/Modification

A Bidder may, by letter to the Contract Officer, withdraw or modify a submitted proposal before the proposal deadline (due date and time) in the Schedule. Proposals cannot be changed after that date and time.

Immaterial Defect

The Commission may waive any immaterial defect or deviation contained in a Bidder's proposal. The Commission's waiver shall in no way modify the proposal or excuse the successful Bidder from full compliance.

39. How Will I Know If I Have Been Awarded A Contract?

A Notice of Proposed Awards (NOPA) will be posted for five (5) working days at the Commission's headquarters in Sacramento, and on the Commission's and the DGS' web site. In addition, each Bidder will be mailed a copy of the NOPA.

Upon completion of the five (5) day notice period, contract documents will be prepared and sent to successful Bidders for their signatures. The Commission will not consider any substantive changes to the contract "terms and conditions" contained in this RFP. If, for any reason, a successful Bidder does not sign the contract documents within a reasonable time, the Commission may eliminate that project from its award list and select the next highest ranked project for funding.

After the awarded Bidders have signed the contract documents, the Commission will consider final approval of each contract at a publicly noticed Commission Business Meeting. The Commission at that time may approve more than one contract.

40. What are the Grounds for Rejection?

A proposal will be rejected if any of the following occurs:

- The proposal is not received by the time and date set for receipt of proposal listed in the RFP Schedule Section 1 (Public Contract Code, Section 10344(a)).
- The entire proposal is labeled as confidential.
- The proposal is considered non-responsive to the Disabled Veteran Business Enterprise program requirements.

A proposal may be rejected if:

- It does not contain a properly executed Certification Clauses Package (see Attachment 3).
- The proposal does not meet eligibility and feasibility screening criteria.
- It contains false or misleading statements or references which do not support an attribute or condition contended by the competitor.
- The proposal does not comply with or contains caveats that conflict with this solicitation.
- There is a conflict of interest as contained in Public Contract Code Sections 10410, 10411 and 10365.5.
- The proposal is unsigned.
- The bidder has submitted multiple projects within a single proposal.
- The proposal is not prepared in the required format described herein.

41. What Happens If My Proposal Is Unsuccessful?

After the NOPA is posted, each unsuccessful Bidder may request a debriefing meeting with the Commission Contracts Office. The debriefing meeting is an opportunity for an unsuccessful Bidder to learn why their particular proposal was not successful and may provide insight to improving proposal preparation for future solicitations.

42. What If I Want To Protest The Awards?

A Bidder may file a protest against the proposed awarding of a contract. Once a protest has been filed, contracts will not be awarded until either the protest is withdrawn, or the Commission cancels the RFP, or the Department of General Services decides the matter.

Please note the following:

- Protests are limited to the grounds contained in the California Public Contract Code Section 10345.
- During the five working days that the NOPA is posted, protests must be filed with the DGS Legal Office and the Commission Contracts Office.
- Within five days after filing the protest, the protesting Bidder must file with the DGS and the Commission Contracts Office a full and complete written statement specifying the grounds for the protest.
- If the protest is not withdrawn or the solicitation is not canceled, DGS will decide the matter. There may be a formal hearing conducted by a DGS hearing officer or there may be briefs prepared by the Bidder and the Commission for the DGS hearing officer consideration.

43. What Happens To My Proposal Documents?

On the Notice of Proposed Award date, all proposals and related material submitted in response to this RFP become the property of the State and a part of the public record, unless the Bidder has submitted an application for confidentiality.

Confidential documents submitted by unsuccessful Bidders will be returned to the Bidder or destroyed by the Commission. Contractor identified and Commission designated confidential documents will be filed separately from the rest of the proposal and contract documents. Only authorized persons will have access to these designated confidential documents.

44. Key Words and Their Definitions

Application: How a technology, once it is developed, is used to achieve a desired result or objective.

Advanced Reciprocating Internal Combustion Engine (ARICE): Ultra-clean and super efficient reciprocating internal combustion engine meeting and exceeding current and any future standards for distributed generation, cogeneration, and other shaft power applications in California.

Availability: A measure of time a generating unit, transmission line, or other facility is capable of providing service, whether or not it actually is in service. Typically, this measure is expressed as a percent available for the period under consideration. (Ref.: Glossary of Terms Task Force, North American Electric Reliability Council, http://www.nerc.com/glossary/glossary-body.html)

Baseline condition: The current, state-of-the-art technology or body of knowledge for a particular topic.

Bidder: Respondent to this RFP.

Commission: California Energy Commission.

Contract: The agreement signed by the Bidder and the Commission, and approved by the California Department of General Services. A contract is defined in the Public Contracts Code as an agreement or joint development agreement to provide labor, services, material, supplies, or equipment in the performance of a contract awarded for or on behalf of the State of California. The proposal submitted by a Bidder will be included in the contract between the Bidder and the Commission.

Contract budget: The proposed Commission-reimbursable expenditures AND the Contractor's match fund expenditures for that portion of the project covered by the contract term.

Contract term: The start and end dates stated in the contract between the Commission and the Contractor. The project may be shorter than, coincide with, or extend beyond, the contract term. However, all Commission reimbursed and matched activities must occur during the contract term.

Contractor: A Bidder, after a contract with the Commission has been signed and approved.

Cooling, heating and power (CHP): Energy generation systems that involve simultaneous production of electricity or mechanical power and thermal energy (such as hot water, steam or cool air) that, when compared to separate production of electricity or mechanical power and thermal energy, achieves highly efficient fuel utilization. CHP systems are sometimes referred to as combined heat and power or cogeneration.

Decision maker: An individual or organization that can use the results of a completed project for further RD&D, technology commercialization, or use.

Deliverable: Deliverables are products that incorporate the knowledge and understanding gained by performing the activities and that are submitted to the Commission for review, comment and approval.

Demonstration: Operation of a completed product embodying a prototype or commercial configuration of a technology for the purpose of demonstrating the attainment of project goals.

Development: Bringing into reality or activity a product embodying a commercial configuration of a technology.

DGS: State of California, Department of General Services.

Dispatchability: Generation available physically or contractually to respond to changes in system demand or to respond to transmission security constraints. (Ref.: Glossary of Terms Task Force, North American Electric Reliability Council, http://www.nerc.com/glossary/glossary-body.html)

Distributed Generation (DG), also referred to as **Distributed Energy Resources (DER)**: A Commission Committee has defined DG as stationary applications of electric generating technologies that are smaller than 50 MW of net generating capacity, the Energy Commission's power plant siting jurisdiction threshold. These generating installations may be owned by electric or gas utilities; industrial, commercial, institutional or residential energy consumers; or independent energy producers. They include generating technologies such as engines, fuel cells, small and "micro" gas turbines, solar photovoltaics (PV), and wind turbines, and may be combined with electric storage technologies such as batteries and flywheels. (Ref: Distributed Generation: CEOA Review and Permit Streamlining, California Energy Commission Energy Facility Siting and Environmental Committee, report number P700-00-019, December 2000, page 10, available at http://www.energy.ca.gov/distgen/documents.) Other entities have defined DG in different ways. For example, the California Alliance for Distributed Energy Resources (CADER), Technology Characterization Committee, described DER technology characteristics as follows: "generates or stores electricity located near or at a load center, can be grid connected or isolated, has a value greater than grid power including customer value, distribution system benefits, backup or emergency power, and social or environmental value."

Economic performance objective: A degree of improvement in the capital cost, operating cost, or maintenance cost of an EPAG system expressed as an improved competitive position in the market.

End user: An entity that consumes energy, including electricity or thermal energy, or that directly generates and/or markets energy systems.

Environmentally Preferred Advanced Generation (EPAG): Super-efficient electric generation technologies using clean fuels. In determining whether a particular fuel is 'clean' or not, consideration must be given to environmental impacts across the entire fuel cycle of the type of generation proposed (e.g., including fuel production, transportation, refinement and generation). Examples of EPAG technologies include, but are not limited to, advanced reciprocating internal combustion engines, fuel cells, and advanced gas turbines. (Ref: *Strategic Plan for Implementing the RD&D Provisions of AB 1890*, California Energy Commission, P500-97-007, June 1997.)

Equipment: An item or group of items having a useful life of at least one year, having an acquisition unit cost of at least \$5,000, and purchased with Commission funds. *Equipment* means any products, objects, machinery, apparatus, implements or tools purchased, used or constructed within the project, including those products, objects, machinery, apparatus, implements or tools from which over thirty percent (30%) of the equipment is composed of materials purchased for the project.

For purposes of determining depreciated value of equipment used in the contract, the project shall terminate at the end of the normal useful life of the equipment purchased, funded and/or developed with Commission funds. The Commission may determine the normal useful life of such equipment.

FOB: Freight on board. When referring to cost, this is the cost of the item ready for shipping from the manufacturer.

Goal: For the purposes of this RFP, "goal" is defined as an improvement in technology or the state of knowledge that can be measured and quantified.

Innovation: previously unknown, unused, or not broadly adopted combination of methods, materials, processes, or conditions.

Key personnel: Those individuals who are critical to the successful completion of the proposed project and are difficult to replace because of their experience, capabilities and knowledge.

Key Subcontractors: Those contractors, subcontractors or vendors to the Contractor who are critical to the outcome of the project. As with Key Personnel, Key Subcontractors may have expertise in the particular field, or have experience that is not available from another source and replacement may significantly affect the project. An employee of the Contractor's subcontractor or vendor may also qualify as "key".

LHV: Lower heating value.

Market connection: A key objective of the PIER program is to develop energy products or services that will be applied in the real world, and will thus produce benefits for California's electricity ratepayers. A strong connection with the market can be demonstrated by (1) identifying a specific market(s) for the products or services resulting from the RD&D efforts, (2) estimating the size of that market (and how much of that market exists in California), (3) providing an overview of the pathway(s) by which such products or services will ultimately enter the marketplace, and (4) identifying people and entities that can aid in facilitating market entry. Demonstration projects should be closely connected to the market, while fundamental research projects may have a less quantifiable market connection.

Milestone: A significant point in the performance of the project. Examples include the Critical Project Review, the completion of a task, the submittal of a deliverable, the completed installation of a piece of hardware, and the initial operation of a new system.

Objective: For this RFP, "objective" is defined as a desired condition outside the project itself that results from the success of the project.

Performance metric: An indicator of the performance of a product that allows the research product to be evaluated on its ability to meet the identified technical, economic and performance goals.

Private benefit: For the purposes of this RFP, private benefit is an economic return or profit that the Bidder or a member of the team acquires for its own advantage.

Program: A collection of individual projects with the same set of overall goals and objectives, wherein each project develops a unique product or service to help achieve the overall program goals and objectives. Within a program, the individual projects are separate and their unique products or services can be developed independently, e.g., development of several different types of ARICE system technologies in a coordinated effort to achieve lower costs and higher efficiencies for ARICE systems is a program; simply obtaining information (as opposed to developing a product or service) does not constitute a program.

Project: An RD&D effort intended to advance a specific science and/or technology that is guided by a set of goals and objectives and that is implemented according to a valid technical approach.

Proposal: The formal written response to this RFP from the Bidder. If the proposal is accepted by the Commission, the proposal will be included as part of the contract.

Public benefit: A project produces public benefits if it achieves one or more of the following five objectives: (1) improves energy cost or value, (2) improves the environment, public health and safety, (3) improves energy reliability, quality or sufficiency, (4) strengthens the California economy, and (5) provides consumer choice. (Ref: California Energy Commission Five-Year Investment Plan, 2002 Through 2006, for the Public Interest Energy Research (PIER) Program, Volume 1, Report to the California Legislature, California Energy Commission, March 1, 2001. Available at http://www.energy.ca.gov/research.)

RFP: Request for Proposal, this entire document. The competitive process of selecting Contractor (s) to provide services for the benefit of the Energy Commission.

Reliability: The degree of performance of the elements of the bulk electric system that results in electricity being delivered to customers within accepted standards and in the amount desired. Reliability may be measured by the frequency, duration, and magnitude of adverse effects on the electric supply. Electric system reliability can be addressed by considering two basic and functional aspects of the electric system Adequacy and Security. Adequacy is the ability of the electric system to supply the aggregate electrical demand and energy requirements of the customers at all times, taking into account scheduled and reasonably expected unscheduled outages of system elements. Security is the ability of the electric system to withstand sudden disturbances such as electric short circuits or unanticipated loss of system elements. (Ref.: Glossary of Terms Task Force, North American Electric Reliability Council, http://www.nerc.com/glossary/glossary-body.html)

Research: The careful, systematic, and reasonably thorough study and investigation in a particular field of knowledge, for the purpose of discovering or establishing facts or principles and developing a product or process.

Serviceable Life: Minimum hours of operation within which cost-effective maintenance can be accomplished. When unit replacement is a less expensive option, serviceable life ends.

Stakeholder: An entity, such as an individual, corporation, trade organization, end user, research organization, university, regulatory body, government agency, financial organization, sponsor, or marketer that has a title, financial share, special skill or resource, mandated responsibility, or other direct interest in the undertaking to develop, enable, negotiate, deploy, or commercialize a technology.

State: State of California.

Subject technology: The body of knowledge, system component, device, generating system, manufacturing technique, material, etc. that will be improved as a result of the project proposed by the Bidder. For example, for the development of a laser ignition

system for an engine genset, the laser ignition system would be the subject technology and the engine genset would be the EPAG technology.

Task: A distinct research effort that includes an objective, a description of related activities, and a list of deliverables. Within this RFP, the task is the lowest level of a research effort. Multiple tasks support a project.

Team member: A stakeholder with contractual responsibilities to the Commission (i.e., the Bidder), or to the Bidder (e.g., subcontractors, consultants, etc.), associated with a project. Such team members may include, but are not limited to, ARICE system manufacturers, suppliers, vendors, universities, research organizations, a National Laboratory, technology owners, industry trade organizations, and end users.

Technical performance objective: A qualitative degree of improvement in the performance of an EPAG system, component, or subsystem.

Technological baseline: The current state of-the-art or the developmental status of the subject technology to be developed, or the body of knowledge to be advanced.

Technology: The general subject area where the product or innovation would be used.

Usability: An index indicating the ease of operation from the end-user perspective.

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Notice of Intent to Bid

PIER Environmentally Preferred Advanced Generation

Advanced Reciprocating Internal Combustion Engine Systems (ARICE) Solicitation RFP 500-01-502

The information you submit on this form is NOT binding. This Notice of Intent to Bid will be held confidential until the Notice of Proposed Awards is posted. Please return this form to the California Energy Commission Contracts Office by January 31, 2001.

1.	Brief Project Title:			
2. Organization Name:				
3.	Contact Person:		Telephone:	
	Title:		Fax:	
			E-mail:	
4.	Project Subject Area			
	Engine:			
	Fuels and Lubricants:			
	Exhaust Aftertreatment			
	Other – please specify:			
6.	Estimated Project Costs and L	ength		
	Total PIER Funds Requested	\$	Project length:	months
	Total Matching Funds Provided	\$		
	Total Project Cost	\$		
7.	Team Composition			
	Prime Contractor			

RFPAttachment 2

Application and Program Information Form

PIER Environmentally Preferred Advanced Generation Solicitation Advanced Reciprocating Internal Combustion Engine Systems (ARICE) RFP 500-01-502

This document provides the Energy Commission with basic information about your business and project to help us process your proposal. This attachment must be signed and submitted with each proposal.

Business Address			
(street nun	nber and name)	(mail stop/	suite number)
(city)	(county)	· · ·	(zip code)
Contact Person	Title		
Telephone	Fax _		
E-mail			
2. Project Information			
Brief Project Title			
Project Work Site Location			

1. Bidder Information

4. Project Technology
Engine:
Fuels and Lubricants:
Exhaust Aftertreatment:
Other – please specify:
5. Project Costs
PIER Funding Requested \$ Match Funding Offered \$ Total \$
6. Type of PIER funding being requested (Please check only one.)
☐ PIER funds with royalty provisions ☐ PIER funds without royalty provisions
Bidders should carefully read this solicitation (Royalty Requirements and Exemption Option for PIER) before checking either of the boxes. If neither box is checked, the Commission will assume that the Bidder is selecting PIER funds with royalty provisions. (Refer to Section I, Introduction)
7. Type of Entity or Business Organization
Organization Tax ID Number
Nature of Business Activity
Number of employees Year established
How long under current ownership Legal form of organization (check one):
☐ Sole Proprietorship ☐ Corporation ☐ LLC
☐ General Partnership ☐ Sub-Chapter S Corporation
Limited Partnership Other (describe)
If Corporation, please include Articles of Incorporation immediately following this Attachment. If Partnership, include Partnership Agreement. If Sole Proprietorship, include Fictitious Name Filing.

ARICE App Form

Please list key officers and managers of the bidder organization. Name Title Years with Organization Please list owners of the bidder organization. For publicly traded corporations, please list shareholders involved in management of the business and/or owning 10% or more of outstanding shares. Shareholder/Partner (Indicate General or Limited) % Ownership SS# 9. Financial/Legal History If you answer yes to either of these questions, please provide a detailed explanation. YES NO Has your organization, or you as a sole proprietor, ever filed bankruptcy or defaulted on any debts? Is your organization, or you as a sole proprietor, a party to any claim or lawsuit? 10. Small Business Preference Claim Does your organization qualify as a small business under the Federal Self-Certification regulations? Federal Self-Certification No Yes Annual Receipts: \$ _____ Standard Industrial Classification (SIC) Code: _____ Is your organization certified as a small business by the State of California, or have you applied for certification? No Yes **State Certification** Already certified _____ (date) Application submitted to Office of Small Business Certification and Resources (date)

8. Management and Ownership Information (Add sheets if necessary.)

11. Disabled Veteran Business Participation Acknowledgement
I certify that I have read and understand the requirements of DVBE participation and understand my obligations in regard to DVBE. I also understand that failure to meet the requirements of the DVBE program will cause my proposal to be rejected before evaluation.
☐ YES ☐ NO
12. Proposal Contents
Check to indicate the proposal material you are submitting.
Admin Volume #1 Technical Volume #2
☐ Confidential Volume #3 (See Sections II and IV of RFP.) ☐ CD Rom or Zip Diskette
13. Authorization and Certification
I hereby authorize the California Energy Commission to make any inquiries necessary to verify the information I have presented and obtain any financial information necessary to evaluate my organization's capability to supply the necessary financial support to the proposed project
I hereby certify to the best of my knowledge and belief that I have read, understand, and accept the terms and conditions contained in this RFP package and, further, I am willing to enter into a contract with the Commission to conduct the proposed project according to the terms and conditions offered.
I hereby certify to the best of my knowledge that the information contained in this proposal is correct and complete.

Typed Name

Signature of Authorized Representative

Date

Title

CERTIFICATION CLAUSES

I, the official named below, CERTIFY UNDER PENALTY OF PERJURY that I am duly authorized to legally bind the prospective Contractor to the clause(s) listed below. This certification is made under the laws of the State of California.

Contractor/Bidder Firm Name (Printed)		Federal ID Number		
By (Authorized Signature)				
Printed Name and Title of Person Signing				
Date Executed	Executed in the County of			

CONTRACTOR CERTIFICATION CLAUSES

- 1. <u>STATEMENT OF COMPLIANCE</u>: Contractor has, unless exempted, complied with the nondiscrimination program requirements. (GC 12990 (a-f) and CCR, Title 2, Section 8103) (Not applicable to public entities.)
- 2. <u>DRUG-FREE WORKPLACE REQUIREMENTS</u>: Contractor will comply with the requirements of the Drug-Free Workplace Act of 1990 and will provide a drug-free workplace by taking the following actions:
- a. Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations.
- b. Establish a Drug-Free Awareness Program to inform employees about:
- 1) the dangers of drug abuse in the workplace;
- 2) the person's or organization's policy of maintaining a drug-free workplace;
- 3) any available counseling, rehabilitation and employee assistance programs; and,
- 4) penalties that may be imposed upon employees for drug abuse violations.
- c. Every employee who works on the proposed Agreement will:

- 1) receive a copy of the company's drug-free workplace policy statement; and,
- 2) agree to abide by the terms of the company's statement as a condition of employment on the Agreement.

Failure to comply with these requirements may result in suspension of payments under the Agreement or termination of the Agreement or both and Contractor may be ineligible for award of any future State agreements if the department determines that any of the following has occurred: (1) the Contractor has made false certification, or violated the certification by failing to carry out the requirements as noted above. (GC 8350 et seq.)

- 3. NATIONAL LABOR RELATIONS BOARD CERTIFICATION: Contractor certifies that no more than one (1) final unappealable finding of contempt of court by a Federal court has been issued against Contractor within the immediately preceding two-year period because of Contractor's failure to comply with an order of a Federal court which orders Contractor to comply with an order of the National Labor Relations Board. (PCC 10296) (Not applicable to public entities.)
- 4. <u>UNION ORGANIZING</u> Contractor hereby certifies that no request for reimbursement, or payment under this agreement, will seek reimbursement for costs incurred to assist, promote or deter union organizing.

DOING BUSINESS WITH THE STATE OF CALIFORNIA

The following laws apply to persons or entities doing business with the State of California.

1. <u>CONFLICT OF INTEREST</u>: Contractor needs to be aware of the following provisions regarding current or former state employees. If Contractor has any questions on the status of any person rendering services or involved with the Agreement, the awarding agency must be contacted immediately for clarification.

Current State Employees (PCC 10410):

- 1). No officer or employee shall engage in any employment, activity or enterprise from which the officer or employee receives compensation or has a financial interest and which is sponsored or funded by any state agency, unless the employment, activity or enterprise is required as a condition of regular state employment.
- 2). No officer or employee shall contract on his or her own behalf as an independent contractor with any state agency to provide goods or services.

Former State Employees (PCC 10411):

- 1). For the two-year period from the date he or she left state employment, no former state officer or employee may enter into a contract in which he or she engaged in any of the negotiations, transactions, planning, arrangements or any part of the decision-making process relevant to the contract while employed in any capacity by any state agency.
- 2). For the twelve-month period from the date he or she left state employment, no former state officer or employee may enter into a contract with any state agency if he or she was employed by that state agency in a policy-making position in the same general subject area as the proposed contract within the 12-month period prior to his or her leaving state service.

If Contractor violates any provisions of above paragraphs, such action by Contractor shall render this Agreement void. (PCC 10420)

Members of boards and commissions are exempt from this section if they do not receive payment other than payment of each meeting of the board or commission, payment for preparatory time and payment for per diem. (PCC 10430 (e))

- 2. <u>LABOR CODE/WORKERS' COMPENSATION</u>: Contractor needs to be aware of the provisions which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions, and Contractor affirms to comply with such provisions before commencing the performance of the work of this Agreement. (Labor Code Section 3700)
- 3. <u>AMERICANS WITH DISABILITIES ACT</u>: Contractor assures the State that it complies with the Americans with Disabilities Act (ADA) of 1990, which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA. (42 U.S.C. 12101 et seq.)
- 4. <u>CONTRACTOR NAME CHANGE</u>: An amendment is required to change the Contractor's name as listed on this Agreement. Upon receipt of legal documentation of the name change the State will process the amendment. Payment of invoices presented with a new name cannot be paid prior to approval of said amendment.

5. CORPORATE QUALIFICATIONS TO DO BUSINESS IN CALIFORNIA:

- a. When agreements are to be performed in the state by corporations, the contracting agencies will be verifying that the contractor is currently qualified to do business in California in order to ensure that all obligations due to the state are fulfilled.
- b. "Doing business" is defined in R&TC Section 23101 as actively engaging in any transaction for the purpose of financial or pecuniary gain or profit. Although there are some statutory exceptions to taxation, rarely will a corporate contractor performing within the state not be subject to the franchise tax.
- c. Both domestic and foreign corporations (those incorporated outside of California) must be in good standing in order to be qualified to do business in California. Agencies will determine whether a corporation is in good standing by calling the Office of the Secretary of State.
- 6. <u>RESOLUTION</u>: A county, city, district, or other local public body must provide the State with a copy of a resolution, order, motion, or ordinance of the local governing body which by law has authority to enter into an agreement, authorizing execution of the agreement.
- 7. <u>AIR OR WATER POLLUTION VIOLATION</u>: Under the State laws, the Contractor shall not be: (1) in violation of any order or resolution not subject to review promulgated by the State Air Resources Board or an air pollution control district; (2) subject to cease and desist order not subject to review issued pursuant to Section 13301 of the Water Code for violation of waste discharge requirements or discharge prohibitions; or (3) finally determined to be in violation of provisions of federal law relating to air or water pollution.
- 8. <u>PAYEE DATA RECORD FORM STD. 204:</u> This form must be completed by all contractors that are not another state agency or other government entity.

RFP ATTACHMENT 4.1

STATE OF CALIFORNIA

CALIFORNIA ENERGY COMMISSION
Contracts Office

PRIME BIDDER'S CERTIFICATION OF DISABLED VETERAN-OWNED BUSINESS PARTICIPATION

See Instructions on Reverse

I hereby certify that I have made a diligent effort to ascertain the facts with regard to the representations made herein and, to the best of my knowledge and belief, each firm set forth in this bid as a disabled veteran business enterprise complies with the relevant definition set forth in Section 1896.62(d) of Title 2, California Code of Regulations hereof.

In making this certification, I am aware of Section 12650 et seq. of the Government Code providing for the imposition of treble damages for making false claims against the State, and Section 10115.10 of the Public Contract Code making it a crime for intentionally making an untrue statement in this certificate.

COMPANY NAME/BIDDER (Please type or print)	RFP#
BIDDER'S SIGNATURE	DATE SIGNED
PRINTED NAME OF PERSON SIGNING	TITLE OF PERSON SIGNING (Business Owner/Chief Executive Officer)

NOTE: If DVBE participation is proposed, this form must be completed and signed by the bidder or the proposal will be rejected.

Bidder's Certification of DVBE Participation - Attachment	Bidder's	Certification	of DVBE	Participation	- Attachment 4	.1
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If the bidder is proposing to meet the DBVE participation goal, the bidder must sign a certification that each firm listed on Attachment 4.2 meets the legal definition of DVBE and the bidder is aware of the penalties for fraud.

- o Company Name legal company name of prime bidder.
- o Bidder's Signature person authorized (CEO) to sign.
- o Printed Name printed name of person who signed.
- o Title title of person signing Business Owner, Chief Executive Officer, Manager.

Only the company (bidder) submitting the proposal must sign this certification.

RFP ATTACHMENT 4.2

STATE OF CALIFORNIA

CALIFORNIA ENERGY COMMISSION
Contracts Office

LIST OF DISABLED VETERAN OWNED BUSINESS PARTICIPATION

(1) Company Name	(2) Nature of Work	(3) Contracting With	(4) TIER	(5) Claimed DVBE Value %	(6) Certification Letter from OSMB Attached
TOTAL				%	

NOTE: If proposing participation goals, this form must be completed or your proposal will be rejected. See instructions on reverse of this form of the RFP.

ATTACHMENT 4.2 RFP 500-00-509

DVBE Participation List – Attachment 4.2

If the participation goals are partially or fully met, Attachment 4.2 must be completed detailing the type of work, the companies (subcontractors and vendors) proposed for DVBE participation, and all other related information.

- Col. 1 DVBE company name each DVBE company must be certified by or have submitted Attachment 4 (application for DVBE certification) to OSBCR by the proposal due date.
- Col. 2 Nature of Work Type of Expertise, Technology, Service, Supplier, etc.
- Col. 3 Contracting with Company name that the DVBE company is contracting with. For example, the bidder may be contracting with a company (XYZ, Inc.) who deals with a DVBE. Then XYZ, Inc. would be entered in Column 3.
- Col. 4 Tier Contracting tier according to the following:
 - 0 = Bidder:
 - 1 = Primary subcontractor/supplier;
 - 2 = Subcontractor/supplier of Level 1 subcontractor/ supplier;
 - 3 = Subcontractor/supplier of Level 2 subcontractor/ supplier.
- Col. 5 Claimed DVBE, % value.

Percent of contract dollars committed to the DVBE listed. This percentage is the amount that will be paid to each DVBE company/vendor from the contract funds.

NOTE: This percentage is not the ownership of the company.

Col. 6 - Certification Letter attached.

This column is a checkpoint for you to ensure that all of the DVBE certification letters are in your proposal. If a certification letter is omitted, that DVBE company cannot be counted towards meeting the goals.

DVBE certification approval letter or a copy of the DVBE Application must be included in the proposal. DVBEs must be certified by the time of contract award in order to count in the participation goals.

You must clearly identify in the Work Statement, Tasks & Budget what services will be provided and the costs related to each DVBE.

CALIFORNIA ENERGY COMMISSION
Contracts Office

DOCUMENTATION OF GOOD FAITH EFFORTS

Section 1. ORGANIZATION CONTACTS

List below the contacts made in an effort to identify potential DVBEs for participation in this contract. Include dates, times (if known), contact names and phone numbers.

(916) 654-4392	

Section 2. ADVERTISING

List the trade papers and DVBE focused papers in which you advertised for participation in this contract. Include the dates of advertisement.

Trade	Ad Date	Publication Name	Copy Attached	

NOTE: If your proposal does not meet the 3% disabled veteran participation goal, this form must be completed to meet "Good Faith Efforts." These are the minimum requirements, therefore

failure to fully complete <u>each</u> section of this form will result in rejection of the proposal as	
failure to fully complete <u>each</u> section of this form will result in rejection of the proposal as nonresponsive.	
failure to fully complete <u>each</u> section of this form will result in rejection of the proposal as nonresponsive.	
failure to fully complete each section of this form will result in rejection of the proposal as nonresponsive.	
failure to fully complete <u>each</u> section of this form will result in rejection of the proposal as nonresponsive.	
failure to fully complete each section of this form will result in rejection of the proposal as nonresponsive.	

Attachment 4.3 Continued

Section 3. DVBEs CONSIDERED

- A. Attach Solicitation Sample or Phone Conversation.
- B. List DVBEs that you contacted for participation in this contract along with the dates you sent the solicitations or called them.
- C. List DVBEs that you considered for participation in this contract and state the reasons the DVBEs were not selected.

Date Contacted	Name of Company	Nature of Work	Reason Considered But Not Selected	Date

NOTE: If your proposal does not meet the 3% disabled veteran participation goal, this form must be completed to meet "Good Faith Efforts." These are the minimum requirements, therefore failure to fully complete <u>each</u> section of this form will result in rejection of the proposal as nonresponsive.

ATTACHMENT 4.3 (CONTINUED) INSTRUCTIONS FOR ATTACHMENT 4.3 DOCUMENTATION OF GOOD FAITH EFFORTS

If a bidder's proposal does not meet the participation goals, then the bidder must document its "good faith effort" to meet the participation goals. The minimum requirements for meeting good faith documentation under the law are CONTAINED in Attachment 4.3, therefore each item in Attachment 4.3 must be accomplished and documented. (Public Contract Code Part 10115.2) IF THE PROPOSAL DOES NOT MEET THE 3% DVBE PARTICIPATION THEN, FAILURE TO PERFORM, COMPLETE AND SUBMIT ATTACHMENT 4.3 WILL BE CAUSE FOR REJECTION OF THE FINAL PROPOSAL AS NONRESPONSIVE TO THE GOOD FAITH EFFORTS REQUIREMENT.

Information is available at:

DGS-DVBE Resources Packet – www.osmb.dgs.ca.gov/scrp/resource.pdf – 916-322-5060

Part 1 - ORGANIZATION CONTACTS

List each contact by date, time, name, and phone number. Each bidder is required at a minimum to undertake steps A, B, and C and to document all efforts under each step. [Public Contract Code Part 10115.2 (b)]. The purpose of making each of these contacts is to obtain the resources/contact groups who can refer you to or provide you with lists of DVBEs.

The DVBE list available from DGS consists of commodities and services (including consultant services).

Part 2 - ADVERTISING

Advertising is required as part of the good faith effort documentation.

- o Advertising must be made in at least two publications: one trade (e.g., work being performed in the project and reimbursed by the Commission) and one DVBE focused.
- o Both advertisements must appear not less than 14 calendar days prior to bid proposal submittal date, to allow reasonable time for consideration of DVBEs.
- The advertisements for DVBE (including names of publications, dates of advertisement and copies of advertisements) must be documented in the bidder's proposal.

NOTE: General circulation newspapers such as the Los Angeles Times or the Sacramento Bee are not acceptable, since neither one qualifies as a trade or focus publication.

Part 3 - DVBE'S RESPONDING AND CONSIDERED

List and identify each DVBE that was contacted and state the reason why they were not selected. DVBE businesses considered must have appropriate qualifications for the work to be performed in the project.

DVBE participation is not limited to any specific portion of the project work. Participation may be from technical firms, but it may also come from nontechnical firms that are part of your daily business operations such as travel agencies, stationary supplies, delivery companies, etc.

NOTE reimb	: The bidder m ursable item under	ust make actual contact the project.	with DVBEs.	Services provided by	DVBEs must be a

RFP Attachment 5.0

SMALL BUSINESS AND DVBE CERTIFICATION INSTRUCTIONS

The OSBCR address and phone for Small Business Preference and DVBE information is:

Department Of General Services
Office of Small Business Certification and Resources
1531 I Street, 2nd Floor
Sacramento, CA 95814-2016
Phone No.: (916) 322-5060

Small Business Certification

In order to receive Small Business Preference, Bidder must either be certified by the State Department of General Services, Office of Small Business Certification and Resources (OSBCR) as a small business, or be self-certified pursuant to the Federal Government.

DVBE Certification

- o Each DVBE firm listed on Attachment 4.2 must be formally certified as a DVBE by OSBCR. The DVBE program is <u>not</u> a self-certification program. DVBE certification must be approved by OSBCR by the notice of award date of the contract to be counted in meeting participation goals.
- o A copy of the certification letter approved by, or a copy of the certification form submitted to OSBCR must be included in the proposal package.

To qualify as a DVBE, the DVBE must:

- 1) Be a California resident;
- 2) Own 51% of the firm and meet the requirements: in 3) and 4) below.
- Provide to the OSBCR, by no later than 5:00 p.m. on the date on which the proposal is due, an Award of Entitlement from the United States Department of Veterans Affairs or the United States Department of Defense, issued within 6 months of the date on which certification is sought, which would certify or declare the existence of a service-connected disability, of at least 10 percent, at the time of application for or renewal of certification as a DVBE, and
- 4) Meet all requirements set forth in Article 6 (commencing with Section 999) of Chapter 6, Division 4 of the California Military code.

The Internet addresses are:

OSBCR Homepage: http://www.dgs.ca.gov/osbcr

This internet site provides general information about the DVBE program and certification process.

DVBE list: http://www.dgs.ca.gov/osbcr

OSBCR maintains a list of certified DVBEs. The list is separated into three main subject areas: Commodities, Construction, and Services. Within each subject area, there are more specific areas of expertise. The Energy Commission does not have separate DVBE lists.

TARGET AREA CONTRACT PREFERENCE ACT (TACPA) REQUEST

SECTION 1: SOLICITATION INFORMATION

	'	 •	 	•	••••	
BID NUMBER						
AGENCY/DEPT						

This request form should be completed by bidders wishing to apply for TACPA preferences for this solicitation.

See reverse for program description and instructions for completing this form.

SECTION 2: REQUEST FOR 5% WORKSITE PREFERENCE List the bidding firm and all suppliers and subcontractors who will work with the bidder to fulfill the terms of the contract. Indicate those firms for which the bidder is requesting worksite preference eligibility by providing the requested information. Attach additional pages if needed

NAME OF FIRM FIRM'S ROLE IN THIS BID (E.			o (Examples: Bidder, Manufacturer, Shipper, etc.) Complete if requesting V				
					•		
STREET ADDRESS	CITY	STATE	ZIP CODE	LABOR HOURS ESTIMATED	BLOCK NUMBER	TRACT NUMBER	CRITERIA (A - F)
NAME OF FIRM		FIRM'S ROLE IN THIS BID (Examples: Bid	der, Manufacture	er, Shipper, etc.)	Complete if re	questing Works	site Preference:
STREET ADDRESS	CITY	STATE	ZIP CODE	LABOR HOURS ESTIMATED	BLOCK NUMBER	TRACT NUMBER	CRITERIA (A - F)
NAME OF FIRM		FIRM'S ROLE IN THIS BID (Examples: Bid	der, Manufacture	er, Shipper, etc.)	Complete if re	questing Works	site Preference:
STREET ADDRESS	CITY	STATE	ZIP CODE	LABOR HOURS ESTIMATED	BLOCK NUMBER	TRACT NUMBER	CRITERIA (A - F)
NAME OF FIRM		FIRM'S ROLE IN THIS BID (Examples: Bid	der, Manufacture	er, Shipper, etc.)	Complete if re	questing Works	site Preference:
STREET ADDRESS	CITY	STATE	ZIP CODE	LABOR HOURS ESTIMATED	BLOCK NUMBER	TRACT NUMBER	CRITERIA (A - F)
NAME OF FIRM		FIRM'S ROLE IN THIS BID (Examples: Bid	der, Manufacture	er, Shipper, etc.)	Complete if re	questing Works	site Preference:
STREET ADDRESS	CITY	STATE	ZIP CODE	LABOR HOURS ESTIMATED	BLOCK NUMBER	TRACT NUMBER	CRITERIA (A - F)
NAME OF FIRM		FIRM'S ROLE IN THIS BID (Examples: Bid	der, Manufacture	er, Shipper, etc.)	Complete if re	questing Works	site Preference:
STREET ADDRESS	CITY	STATE	ZIP CODE	LABOR HOURS ESTIMATED	BLOCK NUMBER	TRACT NUMBER	CRITERIA (A - F)
NAME OF FIRM		FIRM'S ROLE IN THIS BID (Examples: Bid	der, Manufacture	er, Shipper, etc.)	Complete if re	questing Works	site Preference:
STREET ADDRESS	CITY	STATE	ZIP CODE	LABOR HOURS ESTIMATED	BLOCK NUMBER	TRACT NUMBER	CRITERIA (A - F)
NAME OF FIRM		FIRM'S ROLE IN THIS BID (Examples: Bid	der, Manufacture	er, Shipper, etc.)	Complete if re	questing Works	site Preference:
STREET ADDRESS	CITY	STATE	ZIP CODE	LABOR HOURS ESTIMATED	BLOCK NUMBER		CRITERIA (A - F)
SECTION 3: REQUEST FOR 1% - 4% W	ORKFORCE PREFERE	NCE HO	TOTAL LABOR JRS ESTIMATEI				
I request a 1% preference for hiring eligibl	•						
I request a 2% preference for hiring eligibl							
I request a 3% preference for hiring eligibl	·						
☐ I request a 4% preference for hiring eligible	e persons to perform 20% of	or more of the total contract lab	or hours				
SECTION 4: CERTIFICATION							
I hereby certify under penalty of perjury, that (1) the a contract for goods, or 90% of the labor hours requpreference, the bidder shall hire persons with a high complete. Any person falsely certifying, willfully proveligibility.	lired to perform a contract for some risk of unemployment to perfo	services shall be performed at the earm the required contract labor houng information, or failing to comply were the comply with the complexity of the compl	ligible distress is as requested with the TACPA	sed area worksite(s) claimed i d in Section 3, and (4) all info	n Section 2, (3) if a rmation provided in	applying for work	force true, correct, and
BIDDER'S SIGNATURE		PRINTED C	R TYPED NAME				
TITLE	AREA CODE &	PHONE NUMBER		DATE EXECUTED			

TARGET AREA CONTRACT PREFERENCE ACT (TACPA) REQUEST

STD 830 (NEW. 5-99)

Program Description

The intent of the Target Area Contract Preference Act (TACPA) is to promote economic development and employment opportunities in distressed areas of the state by offering bidding preferences on qualified solicitations.

TACPA provides for two preferences: Worksite and Workforce.

Worksite Preference: Bidders may be eligible for a 5% bid preference on state goods and services contracts valued at more than \$100,000 if the worksite is located in a distressed area as designated by the State Office of Planning and Research.

TACPA allows state contracting officials to award the worksite preference when 50% of the labor hours required to manufacture the goods and to perform a contract for goods, or 90% of the labor hours required to perform a contract for services is performed at the approved worksites.

Workforce Preference: Companies qualifying for the 5% worksite preference may request an additional 1% - 4% workforce preference by certifying to hire a specified percent of their contract workforce from employees who are at high risk of unemployment as defined in California Government Code, Section 4532(f).

To request workforce preference, the bidder must first identify an eligible worksite.

TACPA bid preferences do not apply to contracts in which the worksite is fixed.

For more detail, see California Government Code, Section 4530 et seq. and California Code of Regulations, Title 2, Section 1896.30.

Other Bidding Preference Programs

In addition to TACPA, the State has other bidding preference programs for which you might qualify:

EZA - Enterprise Zone Act (up to a 9% bidding preference)

LAMBRA - Local Agency Military Base Recovery Area Act (up to a 9% bidding preference)

Small Business - Certified small businesses in California can receive a 5% bidding preference.

A non-certified small business that claims any combination of EZA, TACPA or LAMBRA preferences cannot use these preferences to displace a certified small business.

How the Bidding Preference Works

The TACPA bidding preference that you qualify for is used only for bid solicitation purposes, to a maximum of \$50,000. The preference does not alter the amount of the resulting contract.

If you qualify for more than one bidding preference (EZA, TACPA, LAMBRA, Small Business) the maximum preference allowed by law is 15% or \$100,000.

Reporting Requirements

Firms receiving TACPA preferences must report their labor hours. Reference the state contract on which you are bidding for specific reporting requirements.

How to Identify TACPA Locations

Contact the appropriate city or county planning and development office or your local Area Council of Governments and ask for the Census Tract and Block Group numbers for the firm or firms for which you are requesting worksite preference.

Then, contact the State of California, Department of General Services, Office of Small Business Certification and Resources at (916) 323-5478 and ask for the TACPA coordinator. The coordinator will tell you if the worksite is eligible.

Instructions for completing "Target Area Contact Preferences Act (TACPA) Request" on Reverse

Section 1: Enter the solicitation number and the name of the state department or agency offering the solicitation.

Section 2: Enter the requested information for 1) the bidding firm, and 2) all firms with whom the bidder will be subcontracting to perform the work required to complete this bid. You must list all firms, including the manufacturer, if applicable, not just those requesting worksite preference.

Firm's role in this bid: Enter the appropriate description indicating what job the listed firm will perform.

Tract and Block Numbers: See instructions above on how to obtain tract and block numbers.

Labor Hours Estimated: For each firm listed, estimate the total labor hours to be performed. Total the estimated hours for each firm and enter them into the box labeled "Total Labor Hours Estimated"

Criteria:

- A: The firm is located in a California eligible distressed area.
- B: The firm will establish a worksite in a California eligible distressed area.
- C: MAP REQUIRED. The firm is located in a census tract block that, when attached to an eligible distressed area, forms a contiguous boundary. If you enter "C", you must attach a map showing the relationship of the requested area to the distressed area.
- D: MAP REQUIRED. The firm will establish a worksite located in a census tract block that, when attached to an eligible distressed area, forms a contiguous boundary. If you enter "D", you must attach a map showing the relationship of the requested area to the distressed area.
- E: GOODS ONLY. The firm will purchase the contract goods from a manufacturer located in an eligible distressed area.
- F: GOODS ONLY/MAP REQUIRED. The firm will purchase contract goods from a manufacturer located in a census tract block that, when attached to a distressed area, forms a contiguous boundary. If you enter "F", you must attach map showing the relationship of the requested area to the distressed area.
- **Section 3:** Select the appropriate box, indicating the percentage of workforce preference you are requesting. To request workforce preference, the bidder must first identify an eligible worksite.

Section 4: The Bidder must complete and sign the Certification.

ENTERPRISE ZONE ACT (EZA) PREFERENCE REQUEST

AGENCY/DEPT.

STD 831 (NEW. 5-99)	
SECTION 1: SOLICITATION INFORMATION	N .
BID NUMBER	7
	This reque

This request form should be completed by bidders wishing to apply for EZA preferences for this solicitation.

See reverse for program description and instructions for completing this form.

SECTION 2: REQUEST FOR 5% WORKSITE PREFERENCE List the bidding firm and all suppliers and subcontractors who will work with the bidder to fulfil the terms

	for which the bidder is requesting worksite prefer	• •				
NAME OF FIRM	FIRM'S ROLE IN	THIS BID (Examples: Bidder,	Manufacturer, Sh	hipper, etc.)	Complete if requesting W	orksite Preference:
STREET ADDRESS	CITY	STATE	ZIP CODE	LABOR HOURS ESTIMATED	ENTERPRISE ZONE NAME	CRITERIA (A - C)
NAME OF FIRM	FIRM'S ROLE IN	THIS BID (Examples: Bidder,	Manufacturer, Sh	hipper, etc.)	Complete if requesting W	orksite Preference:
STREET ADDRESS	CITY	STATE	ZIP CODE	LABOR HOURS ESTIMATED	ENTERPRISE ZONE NAME	CRITERIA (A - C)
NAME OF FIRM	FIRM'S ROLE IN	THIS BID (Examples: Bidder,	Manufacturer, Sh	hipper, etc.)	Complete if requesting W	orksite Preference:
STREET ADDRESS	CITY	STATE	ZIP CODE	LABOR HOURS ESTIMATED	ENTERPRISE ZONE NAME	CRITERIA (A - C)
NAME OF FIRM	FIRM'S ROLE IN	THIS BID (Examples: Bidder,	Manufacturer, Sh	hipper, etc.)	Complete if requesting W	orksite Preference:
STREET ADDRESS	CITY	STATE	ZIP CODE	LABOR HOURS ESTIMATED	ENTERPRISE ZONE NAME	CRITERIA (A - C)
NAME OF FIRM	FIRM'S ROLE IN	THIS BID (Examples: Bidder,	Manufacturer, Sh	hipper, etc.)	Complete if requesting W	orksite Preference:
STREET ADDRESS	CITY	STATE	ZIP CODE	LABOR HOURS ESTIMATED	ENTERPRISE ZONE NAME	CRITERIA (A - C)
NAME OF FIRM	FIRM'S ROLE IN	THIS BID (Examples: Bidder,	Manufacturer, Sh	hipper, etc.)	0	
STREET ADDRESS	CITY	STATE	ZIP CODE	LABOR HOURS ESTIMATED	Complete if requesting Westerprise zone Name	CRITERIA (A - C)
NAME OF FIRM	FIRM'S ROLE IN	THIS BID (Examples: Bidder,	Manufacturer Sh	ninner etc.)		, ,
					Complete if requesting W	
STREET ADDRESS	CITY	STATE	ZIP CODE	LABOR HOURS ESTIMATED	ENTERPRISE ZONE NAME	CRITERIA (A - C)
NAME OF FIRM	FIRM'S ROLE IN	THIS BID (Examples: Bidder,	Manufacturer, Sh	hipper, etc.)	Complete if requesting W	orksite Preference:
STREET ADDRESS	CITY	STATE	ZIP CODE	LABOR HOURS ESTIMATED	ENTERPRISE ZONE NAME	CRITERIA (A - C)
		1101	TOTAL LABOR			
	% - 4% WORKFORCE PREFERENCE		RS ESTIMATE	D .		
☐ I request a 1% preference for hi	iring eligible persons to perform 5 - 9.99% of the t	otal contract labor h	ours			
I request a 2% preference for hi	iring eligible persons to perform 10 - 14.99% of th	e total contract labo	hours			
I request a 3% preference for hi	iring eligible persons to perform 15 - 19.99% of th	e total contract labo	hours			
I request a 4% preference for hi	iring eligible persons to perform 20% or more of the	ne total contract labo	r hours			
SECTION 4: CERTIFICATION						
	that (1) the bidder is a California based company as de					
	r hours required to perform a contract for services shall					
	s living in a targeted employment area or who are enterp					
	s request is true, correct, and complete. Any person fals	ely certifying, willfully p	roviding false	e intormation, omitting informa	ation, or failing to comply with the	ne E∠A statute is
subject to penalties, fines and possible I	ioss of State contacting eligibility.	DDINITED OF	R TYPED NAME			
PIDDEIV 9 SIGNATURE		PRINTED OF	A I I FED INAME			
TITLE	AREA CODE & PHONE NUMBE	R		DATE EXECUTED		

ENTERPRISE ZONE ACT (EZA) PREFERENCE REQUEST

STD 831 (NEW. 5-99)

Program Description

The intent of the Enterprise Zone Act (EZA) is to promote economic development and employment opportunities in designated enterprise zones by offering bidding preferences on qualified solicitations.

EZA provides for two preferences: Worksite and Workforce.

Worksite Preference: Bidders may be eligible for a 5% bid preference on state goods and services contracts valued at more than \$100,000 if the worksite is located in an enterprise zone as designated by the State Trade and Commerce Agency.

EZA allows state contracting officials to award the bid worksite preference when 50% of the labor hours required to manufacture the goods and to perform a contract for goods, or 90% of the labor hours required to perform a contract for services is performed at the approved worksites.

Workforce Preference: Companies qualifying for the 5% worksite preference may request an additional 1% - 4% workforce preference by certifying to hire a specified percent of their contract workforce employees from a targeted employment area, or from enterprise zone eligible employees.

To request workforce preference, the bidder must first identify an eligible worksite.

EZA bid preferences do not apply to contracts in which the worksite is fixed.

For more detail, see California Government Code, Title 1, Division 5, Chapter 12.8, Section 707 et seq. and California Code of Regulations, Title 2, Section 1896.100.

Other Bidding Preference Programs

In addition to EZA, the State has other bidding preference programs for which you might qualify:

TACPA - Target Area Contract Preference Act (up to a 9% bidding preference)

LAMBRA - Local Agency Military Base Recovery Area Act (up to a 9% bidding preference)

Small Business - Certified small businesses in California can receive a 5% bidding preference.

A non-certified small business that claims any combination of EZA, TACPA or LAMBRA preferences cannot use these preferences to displace a certified small business.

How the Bidding Preference Works

The EZA bidding preference that you qualify for is used only for bid solicitation purposes, to a maximum of \$50,000. The preference does not alter the amount of the resulting contract.

If you qualify for more than one bidding preference (EZA, TACPA, LAMBRA, Small Business) the maximum preference allowed by law is 15% or \$100,000.

Reporting Requirements

Firms receiving EZA preferences must report their labor hours. Reference the state contract on which you are bidding for specific reporting requirements.

How to Identify Enterprise Zone Locations

Contact the city or county economic development office or the State Trade and Commerce Agency at (916) 324-8211.

Instructions for completing "Enterprise Zone Act Preference Request" on Reverse

Section 1: Enter the solicitation number and the name of the state department or agency offering the solicitation.

Section 2: Enter the requested information for 1) the bidding firm, and 2) all firms with whom the bidder will be subcontracting to perform the work required to complete this bid. You must list all firms, including the manufacturer, if applicable, not just those requesting worksite preference.

Firm's role in this bid: Enter the appropriate description indicating what job the listed firm will perform.

Enterprise Zone Name: See instructions above on "How to Identify Enterprise Zone Locations."

Labor Hours Estimated: For each firm listed, estimate the total labor hours to be performed. Total the estimated hours for each firm and enter them into the box labeled "Total Labor Hours Estimated."

Criteria:

A: The firm is located in a California designated enterprise zone

B: The firm will establish a worksite in a California designated enterprise zone.

C: GOODS ONLY. The firm will purchase the contract goods from the manufacturer(s) located in a California designated enterprise zone.

Section 3: Select the appropriate box, indicating the percentage of workforce preference you are requesting. To request workforce preference, the bidder must first identify an eligible worksite.

Section 4: The Bidder must complete and sign the Certification.

LOCAL AGENCY MILITARY BASE RECOVERY AREA (LAMBRA) PREFERENCE REQUEST

STD 832 (NEW. 5-99)

SECTION	1 · SOI	LICITATION	INFORMA	ΔΤΙΩΝ

	_
SID NUMBER	
GENCY/DEPT.	

This request form should be completed by bidders wishing to apply for LAMBRA preferences for this solicitation.

See reverse for program description and instructions for completing this form.

SECTION 2: REQUEST FOR 5% WORKSITE PREFERENCE List the bidding firm and all suppliers and subcontractors who will work with the bidder to fulfill the terms

of the contract. Indicate those firms	for which the Bidder is requesting worksite pre			ion. Attach additional pages if needed.
NAME OF FIRM FIRM'S ROLE IN THIS BID (Ex		IN THIS BID (Examples: Bidder, Man	ufacturer, Shipper, etc.)	Complete if requesting Worksite Preference:
STREET ADDRESS	CITY	STATE ZIP CC	DE LABOR HOURS ESTIN	MATED MILITARY BASE RECOVERY AREA NAME Criteria (A - C)
NAME OF FIRM	FIRM'S ROLE	IN THIS BID (Examples: Bidder, Man	ufacturer, Shipper, etc.)	Complete if requesting Worksite Preference:
STREET ADDRESS	CITY	STATE ZIP CC	DE LABOR HOURS ESTIN	MATED MILITARY BASE RECOVERY AREA NAME Criteria (A - C)
NAME OF FIRM	FIRM'S ROLE	IN THIS BID (Examples: Bidder, Man	ufacturer, Shipper, etc.)	Complete if requesting Worksite Preference:
STREET ADDRESS	CITY	STATE ZIP CC	DE LABOR HOURS ESTIN	MILITARY BASE RECOVERY AREA NAME Criteria (A - C)
NAME OF FIRM	FIRM'S ROLE	IN THIS BID (Examples: Bidder, Man	ufacturer, Shipper, etc.)	Complete if requesting Worksite Preference:
STREET ADDRESS	CITY	STATE ZIP CC	DE LABOR HOURS ESTIM	
NAME OF FIRM	FIRM'S ROLE	IN THIS BID (Examples: Bidder, Man	ufacturer, Shipper, etc.)	Complete if requesting Worksite Preference:
STREET ADDRESS	CITY	STATE ZIP CC	DE LABOR HOURS ESTIN	
NAME OF FIRM	Complete if requesting Worksite Preference:			
STREET ADDRESS	CITY	STATE ZIP CC	DE LABOR HOURS ESTIN	
NAME OF FIRM	FIRM'S ROLE	IN THIS BID <i>(Examples: Bidder, Man</i>	ufacturer, Shipper, etc.)	Complete if requesting Worksite Preference:
STREET ADDRESS	CITY	STATE ZIP CC	DE LABOR HOURS ESTIM	
NAME OF FIRM	FIRM'S ROLE	 IN THIS BID <i>(Examples: Bidder, Man</i>	ufacturer, Shipper, etc.)	Complete if requesting Worksite Preference:
STREET ADDRESS	CITY	STATE ZIP CC	DE LABOR HOURS ESTIN	
SECTION 3: REQUEST FOR 1%		TOTA HOURS ES	LABOR TIMATED	
I request a 1% preference for him	ring eligible persons to perform 5 - 9.99% of the ring eligible persons to perform 10 - 14.99% of			
	ring eligible persons to perform 15 - 19.99% of			
I request a 4% preference for him	ring eligible persons to perform 20% or more of	the total contract labor hou	rs .	
SECTION 4: CERTIFICATION				
100% of the labor hours required to perfit the bidder shall hire persons living within request is true, correct, and complete. A of State contacting eligibility.	orm a contract for services shall be performed at the a Local Agency Military Base Recovery Area to perf	designated Local Agency Milita orm the specified percent of total formation, omitting information,	ry Base Recovery Area(s) cl al contract labor hours as red or failing to comply with the	labor hours required to perform a contract for goods, or aimed in Section 2, (3) if applying for workforce preference, quested in Section 3, and (4) all information provided in this EZA statute is subject to penalties, fines and possible loss
BIDDER'S SIGNATURE		PRINTED OR TYPED	NAME	
TITLE	AREA CODE & PHONE NUM	BER	DATE EXECUT	ED

LOCAL AGENCY MILITARY BASE RECOVERY AREA (LAMBRA) PREFERENCE REQUEST

STD 832 (NEW. 5-99)

Program Description

The intent of the Local Agency Military Base Recovery Area (LAMBRA) Act is to promote economic development and employment opportunities in designated LAMBRAS by offering bidding preferences on qualified solicitations.

The LAMBRA Act provides for two preferences: Worksite and Workforce.

Worksite Preference: Bidders may be eligible for a 5% bid preference on state goods and services valued at more than \$100,000 if the worksite is located in a LAMBRA as designated by the State Trade and Commerce Agency.

LAMBRA allows state contracting officials to award the bid worksite preference when 50% of the labor hours required to perform a contract for goods, or 100% of the labor hours required to perform a contract for services is performed at the approved worksites.

Workforce Preference: Companies qualifying for the 5% worksite preference may request an additional 1% - 4% workforce preference by certifying to hire a specified percent of their contract workforce employees from those designated as LAMBRA qualified individuals. (See Assembly Bill 3: Chapter 1012, 9/30/98).

To request workforce preference, the bidder must first identify an eligible worksite.

LAMBRA bid preferences do not apply to contracts in which the worksite is fixed.

For more detail, see California Government Code, Section 7118 et seq., and California Code of Regulations, Title 2, Section 1896.100. et seq.

Other Bidding Preference Programs

In addition to the LAMBRA Act, the State has other bidding preference programs for which you might qualify:

TACPA - Target Area Contract Preference Act (up to a 9% bidding preference)

EZA -Enterprise Zone Act (up to 9% bidding preference)

Small Business - Certified small businesses in California can receive a 5% bidding preference.

A non-certified small business that claims any combination of EZA, TACPA or LAMBRA preferences cannot use these preferences to displace a certified small business.

How the Bidding Preference Works

The LAMBRA bidding preference that you qualify for is used only for bid solicitation purposes, to a maximum of \$50,000. The preference does not alter the amount of the resulting contract.

If you qualify for more than one bidding preference (EZA, TACPA, LAMBRA, Small Business) the maximum preference allowed by law is 15% or \$100,000.

Reporting Requirements

Firms receiving LAMBRA preferences must report their labor hours. Reference the state contract on which you are bidding for specific reporting requirements.

How to Identify LAMBRA Locations

Contact the State Trade and Commerce Agency at (916) 324-8211.

Instructions for completing "LAMBRA" Preference Request on Reverse

Section 1: Enter the solicitation number and the name of the state department or agency offering the solicitation.

Section 2: Enter the requested information for 1) the bidding firm, and 2) all firms with whom the bidder will be subcontracting to perform the work required to complete this bid. You must list all firms, including the manufacturer, if applicable, not just those requesting worksite preference.

Firm's role in this bid: Enter the appropriate description indicating what job the listed firm will perform.

Military Base Recovery Area Name: See instructions above on "How to Identify LAMBRA Locations."

Labor Hours Estimated: For each firm listed, estimate the total labor hours to be performed. Total the estimated hours for each firm and enter them into the box labeled "Total Labor Hours Estimated."

Criteria:

A: The firm is located in a California designated LAMBRA.

B: The firm will establish a worksite in a California designated LAMBRA.

C: GOODS ONLY. The firm will purchase the contract goods from the manufacturer(s) located in a LAMBRA.

Section 3: Select the appropriate box, indicating the percentage of workforce preference you are requesting. To request workforce preference, the bidder must first identify an eligible worksite.

Section 4: The Bidder must complete and sign the Certification.

Applicant Name:	Proposal Number:
Project Title:	

RFP Attachment 6

Executive Summary Form ARICE Solicitation

Prepare an Executive Summary of the project (no longer than two [2] pages), which describes:

- 1. The problem, barrier, or deficiency, amenable to a RD&D solution, that the proposed project will address in relationship to other current work in the field.
- 2. The technology or science being developed and advanced.
- 3. The unique products, services or levels of understanding that are expected to result from the project.
- 4. The technical approach and project steps that explain what will be done and how it will be done.
- 5. The quantitative goals and objectives of the project.
- 6. The overall project cost.
- 7. The amount of PIER funding being requested.
- 8. The amount, sources and nature of match funding.
- 9. The types, estimated amounts and timing of public benefits to be provided in California if the project is successful and if the results are incorporated into commercial products. California public benefits include, but are not limited to, the annual amount of electrical energy to be saved, the amount of electrical power price reduction expected, the tons per year of pollutants reduced, the installed capacity of ARICE generators in a specified future year, and/or the degree to which system reliability or power quality is enhanced.
- 10. Estimated amounts of additional time and spending, if any, required to realize the public benefits that are being claimed for this project. Identify the types of entities that would be involved in these additional efforts.

PIER PROJECT TERMS & CONDITIONS

1. CONTRACT CONTENTS

This contract consists of the paragraphs listed below and attached exhibits which are hereby expressly incorporated herein.

- 1. Contract Contents
- 2. Contract Purpose
- **3.** Contract Term
- **4.** Definitions
- **5.** Payments to Contractor
- **6.** Travel and Per Diem
- **7.** Purchase of Equipment
- **8.** Project Budget Revision
- 9. Contract Management
- 10. Standard of Performance
- 11. Subcontractors and Subcontractor Agreements
- 12. Reporting
- 13. Recordkeeping, Cost Accounting and Auditing
- 14. Business Activity Reporting
- **15.** Review and Notice of Conflicting Terms
- **16.** Confidentiality
- 17. Intellectual Property Items Developed Prior to this Contract
- 18. Rights of Parties Regarding Intellectual Property
- 19. Royalty Payments to Commission
- **20.** Notices to Parties
- 21. Disputes
- 22. Stop Work
- **23.** Termination
- **24.** General Terms and Conditions

Exhibit A Work Statement

Attachment A-1 - Progress Report Format Attachment A-2 - Final Report Format

Attachment A-3 - System Performance Characteristics

Exhibit B: Task Deliverables, Schedule & Gantt Chart

Exhibit C: Budget

Exhibit D: Contract Contacts – Commission and Contractor Exhibit E: Confidential and Intellectual Property List

2. CONTRACT PURPOSE

The purpose of this contract is to fund research, development and demonstration projects under the Energy Commission Public Interest Energy Research (PIER) Program. The contract will «description». Specific tasks are detailed in the attached Exhibit A, "Work Statement."

3. CONTRACT TERM

The term of this contract shall be from <u>(term)</u>. This contract is of no force or effect until signed by both parties, and approved by the Department of General Services.

4. **DEFINITIONS**

- A. Affiliate of the Contractor means any natural person, corporation, partnership, joint venture, sole proprietorship or other business entity directly or indirectly through one or more intermediaries, controlling, controlled by, or under common control with the Contractor. The term "control" (including the terms "controlled by" and "under common control with") means the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a person, whether through the ownership of voting securities, by contract, or otherwise. For purposes of this contract, it is presumed that ownership or control of the voting power of more than fifty percent (50%) of the voting stock or partnership interests in an entity constitutes control of that entity.
- B. *Contract Budget* refers to Commission reimbursable and Contractor's matching fund expenditures for that portion of the project covered by the contract.
- C. *Contract Period* is the length of this contract between the Energy Commission and the Contractor. The Contractor's "project" may coincide with or extend outside the "contract period."
- D. **Date** means calendar date.
- E. *Contract Start Date* is the date Commission reimbursable expenses can begin after the Department of General Services signs the contract document.
- F. *Contract End Date* is the last date Commission reimbursable expenses can be incurred and is the expiration date of the contract.
- G. **Economic Benefit** for a project co-funded using Energy Commission funds means the realization of economic gain or other tangible benefits by the Contractor or its affiliates (except bona fide third party purchasers of Contractor's commercial products) through the use of project-related products and rights, including but not limited to, operation, sale, distribution or manufacturing, or by any other transaction, including but not limited to, grant, rent, loan, equity, option, transfer, license or other fee, or by otherwise disposing of the project-related products and rights.
- H. The Commission may rely upon professional accounting opinion in making a final determination of the dollar value of gross revenue, and such determination shall be the basis for calculating the royalty payment due the Commission.
- I. **Equipment** is defined as having a useful life of at least one year, having an acquisition unit cost of at least \$5,000, and purchased with Commission funds. **Equipment** means any products, objects, machinery, apparatus, implements or tools purchased, used or constructed within the project, including those products, objects, machinery, apparatus, implements or tools from which over thirty percent (30%) of the equipment is composed of materials purchased for the project.
- J. For purposes of determining depreciated value of equipment used in the contract, the project shall terminate at the end of the normal useful life of the equipment purchased, funded and/or developed with Commission funds. The Commission may determine the normal useful life of such equipment.

- K. *Financial Statements* means balance sheets, statements of operations, statements of cash flows, and capital statements.
- L. *Gross Revenues* means the gross sales price, rentals and other amounts received by Contractor from or on account of the sale, lease, or other transfer or use of Project-Related Products and Rights, less sales tax paid. Gross Revenues shall be determined as above and in accordance with appropriate Federal cost principles and any economic benefit.
- M. **Key Personnel** are employees or consultants of the Contractor who are critical to the outcome of the project. For example, they may have expertise in the particular field, or have experience that is not available from another source. Replacing these individuals may affect the outcome of the project.
- N. **Key Subcontractors** are contractors, subcontractors or vendors to the Contractor and who are critical to the outcome of the project. As with Key Personnel, Key Subcontractors may have expertise in the particular field, or have experience that is not available from another source and replacement may significantly affect the project. An employee of the Contractor's subcontractor or vendor may also qualify as "key".
- O. *Match Fund Participant* means any party which supplies match funds to the project.
- P. *Materials* means the substances used in constructing a finished object, commodity, device, article or product.
- Q. Otherwise Disposing Of means (1) project-related products and rights not sold but delivered by the Contractor or its affiliates to others regardless of the basis for compensation, if any, and (2) project-related products and rights put into use by the Contractor or any third party for any purpose other than testing or evaluation of the project-related products and rights.
- R. **Project** refers to the entire effort undertaken and planned by the Contractor including the work co-funded by the Commission. The project may coincide with or extend beyond the contract period.
- S. **Project-Related Products and Rights** means any and all energy inventions, discoveries, machines, designs, computer software, products, devices, mechanisms, methods, protocols, processes, algorithms, flowcharts, diagrams, trade secrets, data, copyrights, patents, trademarks, proprietary rights, and the like created or made or discovered or first reduced to practice by the Contractor or other third party as a result, in whole or in part, of the contract award(s) and any and all updates, revisions, modification, enhancements, derivations, variations, additions, continuations, renewals, and extensions thereto and all proceeds and products therefrom.
- T. Sale is sale, license, lease, gift or other transfer of a project-related product or right.
- U. **Sales Price** means gross revenue, excluding normal returns and allowances such as sales tax, freight and insurance, if applicable, derived from a sale.
- V. **Subject Invention** means any and all energy invention or discovery conceived, or first actually reduced to practice in the course of or under the Commission-funded portion of this contract (i.e., that portion of this contract for which Contractor has invoiced the Commission and received reimbursement) and includes any art, method, process, machine, manufacture design or composition of matter, or any new and useful improvement hereof, whether patented or unpatented, under the patent laws of the United States of America or any foreign country.

W. **Technology** refers to the general subject area where the product or innovation will be used. For example, solar thermal electric generation is a technology area; direct steam generation is an innovation in this technology area. **Technology Developed** means subject invention and/or project-related products and rights.

X. Terms Relating to Data

- Technical Data or Data as used throughout this contract means recorded information regardless of form or characteristic, of a scientific or technical nature. It may, for example, document research; document experimental, developmental, demonstration, or engineering work; or be usable or used to define a design or process; or to procure, produce, support, maintain, or operate material. The data may be graphic or pictorial delineations in media such as drawings or photographs, test specifications or related performance or design type documents or computer software (including computer programs, computer software data bases, and computer software documentation). Examples of technical data include manufacturing techniques and methods, machinery, devices such as tools, products, or components, research and engineering data, engineering drawings and associated lists, specifications, engineering calculations, standards, process sheets, manuals, technical reports, catalog item identification, and related information. Technical data as used herein does not include financial reports, cost analyses and other information incidental to contract administration.
- 2) **Business Information** is information about the operation of a specific business. It includes information concerning the cost and pricing of goods, supply sources, cost analyses, characteristics of customers, books and records of the business, sales information including mailing lists, customer lists, business opportunities, information regarding the effectiveness and performance of personnel, and information incidental to contract administration.
- Public Information is information previously published, generally available from more than one source, or information in the public domain. All air monitoring and emission data included in a proposal or requested through a contract are public information. California Government Code Section 6254.7 states that all information, analyses, plans or specifications that disclose the nature, extent, quantity, or degree of air contaminants or other pollution which any article, machine, equipment, or other contrivance will produce, which any state or local agency requires Contractor to provide before the Contractor builds, erects, alters, replaces, operates, sells, rents, or uses such article, etc., are public records.
- 4) *Confidential Information* is technical data or business information Contractor has satisfactorily identified and which the Commission has agreed to designate as confidential.
- Proprietary Data is such data as Contractor has identified in a satisfactory manner as being under Contractor's control prior to commencement of performance of this contract or produced by Contractor or its subcontractors at its own expense, and which Contractor has reasonably demonstrated as being of a proprietary nature either by reason of copyright, patent or trade secret doctrines in full force and effect at the time when performance of this contract is commenced.
- 6) A *Trade Secret* is any formula, plan, pattern, process, tool, mechanism, compound, procedure, production data, or compilation of information which is not patented and which is generally known only to certain individuals with a commercial concern and are using it to fabricate, produce or compound an article of trade or a service having

commercial value and which gives its user an opportunity to obtain a business advantage over competitors who do not know or use it.

- Generated Data is that data which the Contractor collects, collates, records, deduces, reads out or postulates for use in the performance of this contract. In addition, any electronic data processing program, model or software system developed or substantially modified by the Contractor in the performance of this contract at Commission expense, together with complete documentation thereof, shall be treated as generated data.
- 8) **Deliverable Data** is that data which, under the terms of this contract, is required to be delivered to the Commission.

5. PAYMENTS TO CONTRACTOR

Subject to the conditions listed below, the Commission agrees to reimburse Contractor, monthly in arrears, for expenses incurred in accordance with Exhibit C, Budget. The consideration to be paid Contractor, as provided herein, shall be in compensation for Contractor's actual and allowable expenses incurred in the performance hereof, including travel, per diem, and applicable taxes, unless otherwise expressly so provided. The total amount of this contract shall not exceed \$\(\psi\)(tlkcost)\(\psi\).00 (\(\psi\)pellout\(\psi\)).

- A. A request for payment shall consist of, but is not limited to:
 - 1) An invoice that is a **list** of actual expenses incurred during the billing period, backup information is not required, see Audit clauses. The invoice list must include:
 - a) date prepared, contract number, contractor's Federal ID number and billing period,
 - b) contractor's actual hourly labor rates by individual, which may be fully loaded,
 - c) operating expenses, including equipment, travel, miscellaneous,
 - d) subcontractor invoices, identifying small business and disabled veteran business,
 - e) overheads, direct & indirect, not included in the fully loaded hourly rate,
 - f) match fund expenditures, and
 - g) by task: cumulative amounts, budgeted, billed to date, current billing, and balance of funds.
 - 2) A progress report that documents evidence of progress, which includes written progress reports and deliverables prepared by the Contractor as detailed in Exhibit A and Exhibit B.
- B. The Commission will accept computer-generated or electronically transmitted invoices without backup documentation provided that Contractor sends a hardcopy the same day to the address in Exhibit D, Contract Contacts.
- C. Contractor shall submit all invoices to the address designated in Exhibit D.
- D. Each invoice is subject to Commission Contract Manager approval and payment by the State Controller's Office.
- E. The Commission Contract Manager may approve invoices requesting partial payment of a task if the Contractor has demonstrated sufficient evidence of progress toward preparing the deliverables required in that task. The Commission Contract Manager will dispute an invoice requesting payment of all funds remaining in that task budget, if the Commission Contract Manager has not received and approved all of the deliverables due for that task.

- F. Payments shall be made to Contractor only for undisputed invoices. An undisputed invoice is an invoice executed by Contractor for services rendered to the Commission and for which additional evidence is not required to make payment. The Commission Contract Manager shall give written notice and specify the known reasons for dispute to Contractor within 15 working days of receipt of the disputed invoice by using a State of California Standard Form 209. If the invoice is not disputed within the 15 working days, the invoice is presumed to be valid, but is subject to audit and verification.
- G. Commission shall retain from each invoice an amount equal to 10 per cent (10%) of that invoice, excluding equipment invoices. The retained amount shall be held by the Commission and released to Contractor only upon the Commission's approval that the contract work has been satisfactorily completed and the Final Report has been received and approved. Contractor must submit an invoice for the retained amount.

OR

- G. Retention may be released upon completion of tasks that are considered separate and distinct, i.e., the task is a stand alone piece of work and could be done without the other tasks. Tasks for administration or management of the contract and/or subcontractors are not considered separate and distinct tasks. Therefore, retention on those tasks will not be released until the termination of the contract. For all other tasks, the Commission Contract Manager shall specify and notify the Contractor Project Director in writing which tasks can be paid in full upon their completion. The procedure for releasing retention upon task completion is as follows:
 - 1) Contractor must submit all deliverables required by the task and an invoice requesting payment in full for the task.
 - 2) The Commission Contract Manager must approve the submitted work. The work must be satisfactorily completed and deliverables accepted by the Commission Contract Manager.
 - 3) The Commission Contract Manager must prepare and submit to the Contracts Office, with the Contractor's invoice requesting retention payment, a copy of all approved deliverables and a Contract/Contractor Evaluation Form.
- H. Payment shall be made to Contractor no later than 30 calendar days from the date a correct, undisputed invoice is received in the Commission Accounting Office. The State shall make payment to the Contractor for performance under this contract, in accordance with applicable deliverable criteria, receipt and approval by the Commission, and in accordance with invoices submitted.
- I. Contractor is entitled to interest penalties beginning on the 46th calendar day that an undisputed invoice is not paid. Contractor is not required to submit an invoice for the interest penalties.
- J. Contractor shall retain all records relating to direct and indirect expenses reimbursed to Contractor hereunder, and to hours of employment on this contract by all employees of Contractor for which the Commission is billed. Such records shall be maintained for a period of three years after final payment of this contract, or until audited by the State, whichever occurs first, and shall be available for inspection or audit at any reasonable time by the Commission or its designee.
- K. This contract is funded through the Public Interest Energy Research (PIER) Program. Contractor may be providing matching funds identified in Contractor's proposal and as detailed in Exhibit C, Budget. Match sources may be revised subject to the requirements of Exhibit A.
- L. These (PIER) contract funds are available until June 30, 2006. The Commission cannot warrant or guarantee that these funds will be extended by the State Legislature. To reflect a reduction of

funds, the Commission may amend the contract to reflect any reduction of funds or cancel the contract under the Termination clause.

6. TRAVEL AND PER DIEM

- A. Travel identified in Exhibit C, Budget is approved and does not require further authorization.
- B. Travel that is not included in Exhibit C, Budget shall require prior written authorization from the Commission Contract Manager. Commission will reimburse travel expenses from the Contractor's office location where the employees assigned to the contract are permanently located.
- C. Commission shall reimburse Contractor for travel and per diem, up to but not to exceed, the rates allowed nonrepresented State employees. Commission shall provide Contractor with current rates and updates when revised by the State or requested by Contractor. Travel expenses in excess of the State rates cannot be reimbursed.
- D. Contractor must retain documentation of travel expenses in its financial records as follows:
 - expenses must be detailed using the current State rates,
 - expenses must be listed by trip including dates and times of departure and return, and
 - receipts for travel expenses claimed must be retained by Contractor (receipts are not required for travel meals or incidentals within current allowable rates).

7. PURCHASE OF EQUIPMENT

- A. Equipment, as defined in Clause 4 and identified in Exhibit C, Budget, PIER Reimbursable Expenditures, is approved for purchase.
- B. Equipment not included in Exhibit C, Budget, PIER Reimbursable Expenditures, shall be subject to prior written approval from the Commission Contract Manager.
- C. All equipment purchased with Commission funds shall be made subject to the following terms and conditions:
 - The Commission Contract Officer will complete and sign a Uniform Commercial Code (UCC.1) Financing Statement and submit it to the Contractor for signature. The Commission Contract Officer will file the signed UCC.1 with the Secretary of State's Office. Invoices for equipment purchases associated with a UCC.1 will not be processed until the UCC.1 has been filed with the Secretary of State's Office.
 - 2) Title to all non-expendable equipment purchased in part or in whole with Commission funds shall remain with the Commission.
 - 3) Contractor shall assume all risk for maintenance, repair, destruction and damage to equipment while in the possession or subject to the control of Contractor. Contractor is not expected to repair or replace equipment that is intended to undergo significant modification or testing to the point of damage/destruction as part of the work described in Exhibit A, Work Statement.
- D. Upon termination of this contract, Commission may:
 - 1) if requested by the Contractor, authorize the continued use of such equipment to further Public Interest Energy Research efforts,

- 2) by mutual agreement with the Contractor, allow the Contractor to purchase such equipment for an amount not to exceed the residual value of the equipment as of the date of termination of this contract, or
- 3) request that such equipment be delivered to the Commission with any costs incurred for such return to be borne by the Commission.

8. PROJECT BUDGET REVISIONS

- A. Budget reallocations that do not significantly affect the scope of work will be made in the following manner. Contractor shall provide reasonable advance notification to the Commission Contract Manager of any anticipated budget reallocations. Contractor may reallocate a task budget up to 15 percent (15%) of the original task amount, with prior written notification to the Contract Manager. Reallocations of more than 15 percent (15%) of an original task budget require prior written approval of the Commission Contract Manager and the Program Team Lead. Commission Contract Manager will notify the Contractor Project Director in writing within 10 working days. The Commission Contract Manager shall send approved changes in a revised Exhibit C, Budget to the Commission Contract Officer.
- B. Significant changes in the scope of work must be approved by the Commission in the form of a formal amendment. A change is significant if it increases the project budget beyond the approved amount, results in changes in deliverables, moves due dates beyond the term of the contract or modifies the scope of work reasonably beyond that approved at the Commission business meeting.

9. CONTRACT MANAGEMENT

A. Contractor Project Director

The Contractor Project Director on behalf of Contractor is designated in Exhibit D. The Contractor Project Director may not be replaced without Commission Contract Manager's prior written approval. Such approval shall not be unreasonably withheld. The Contractor Project Director is responsible for the day to day project status, decisions and communications with the Commission Contract Manager.

B. Commission Contract Manager

The Commission Contract Manager is designated in Exhibit D. Commission may change the Contract Manager by notice given Contractor at any time signed by the Commission Contract Officer. The Commission Contract Manager is responsible for the day-to-day contract status, decisions and communications with the Contractor Project Director. The Commission Contract Manager will review and approve all project deliverables, reports and invoices.

C. Within the contract term stated in contract clause 3, revisions to Exhibit B, Task Deliverables, Schedule and Gantt Chart, may be made by the Contractor Project Director and approved in writing by the Commission Contract Manager without a formal amendment to the contract.

10. STANDARD OF PERFORMANCE

- A. Contractor, its subcontractors and their employees in the performance of Contractor's work under this contract shall be responsible for exercising the degree of skill and care required by customarily accepted good professional practices and procedures used in scientific and engineering research fields.
- B. The failure of a project to achieve the technical or economic goals stated in the Work Statement is not a basis for the Commission to determine that the work is unacceptable, unless the work conducted by the Contractor or subcontractors is deemed by the Commission to have failed the foregoing standard of performance.
- C. In the event that Contractor or its subcontractor fail to perform in accordance with the foregoing standard of performance, the Commission Contract Manager and the Contractor Project Director shall seek to negotiate in good faith an equitable resolution satisfactory to both parties. If such a resolution cannot be reached, the parties shall work through the Commission's dispute resolution process described in the Disputes clause herein.
- D. Nothing contained in this section is intended to limit any of the rights or remedies which the Commission may have under law.
- E. The Commission Contract Manager shall, upon completion of the contract and/or release of retention, prepare a performance evaluation of Contractor.
 - 1) If the Commission Contract Manager prepares an unsatisfactory evaluation, the evaluation shall be filed with the Department of General Services, Office of Legal Services (DGS), and sent to the Contractor within 15 days. The Contractor shall have 30 days to prepare a response to the evaluation of the contract performance. The Contractor shall send its response to the DGS and a copy to the Commission.
 - 2) The unsatisfactory evaluation and Contractor's response shall not be a public record and shall remain on file for a period of 36 months only.

11. PERSONNEL, SUBCONTRACTORS, DVBES

A. Key Personnel

Contractor's key personnel, listed in Exhibit D, may not be substituted without the Commission Contract Manger's prior written approval. Such approval shall not be unreasonably withheld Contractor may substitute all other personnel, with reasonable advance notification made to the Commission Contract Manager.

B. Key Subcontractors

Contractor's key subcontractors, listed in Exhibit D, may not be substituted without the Commission Contract Manager's prior written approval. Such approval shall not be unreasonably withheld. Contractor may substitute all other subcontractors, with reasonable advance notification made to the Commission Contract Manager. Replacement of key subcontractors is subject to the conditions of subparagraph C.

C. Agreements with Subcontractors

1) Nothing contained in this contract or otherwise, shall create any contractual relationship between the Commission and any subcontractors, and no subcontract shall relieve the

Contractor of its responsibilities and obligations hereunder. The Contractor agrees to be as fully responsible to the Commission for the acts and omissions of its subcontractors or persons either directly or indirectly employed by any of them as it is for the acts and omissions of persons directly employed by the Contractor. The Contractor's obligation to pay its subcontractors is an independent obligation from the Commission's obligation to make payments to the Contractor. As a result, the Commission shall have no obligation to pay or to enforce the payment of any monies to any subcontractor.

- 2) Contractor shall be responsible for establishing and maintaining contractual agreements with and reimbursement of each of the subcontractors for work performed in accordance with the terms of this contract. Contractor shall provide Commission with copies of all contractual agreements with key subcontractors promptly upon final execution thereof.
- 3) Flowdown provisions that should be included in subcontracts are listed below. Review each provision for applicability to each situation.

Definitions Confidentiality

Travel & Per Diem Intellectual Property Items Developed prior to this Contract

Purchase of Equipment Recordkeeping, Cost Accounting & Auditing Standard of Performance Rights of Parties Regarding Intellectual Property

Disputes Stop Work

Termination General Terms & Conditions

- 3) PIER contractors who are subcontracting with a private or public university may use the terms and conditions negotiated by the Commission for their subcontracts with the university.
- 4) Replacement or substitution of all non-key subcontractors is permitted with reasonable advance written notification to the Commission Contract Manager and shall be subject to the provisions of subparagraphs D and E below.
- 5) Each subcontract shall contain provisions similar to those of Clause 18. "Rights of Parties Regarding Intellectual Property", subparagraph F. "Limitations on Contractor Disclosure of Contract Data, Information, Reports and Records," related to the confidentiality of Commission data and its nondisclosure by Contractor.
- All subcontracts entered into pursuant to this contract shall be subject to examination and audit by the Bureau of State Audits for a period of three years after final payment under the contract.
- 7) Each subcontract to which the Commission has consented shall contain a provision that further assignments shall not be made to any third or subsequent tier subcontractor without additional advance written consent of Commission.
- D. Additions, Removal, or Substitutions of Subcontractors

Any subcontractor change shall be subject to the following conditions:

1) Contractor shall provide the Commission with a copy of its contracting policies and procedures for selecting subcontractors. The Commission Contract Officer shall evaluate the Contractor's process to determine if it is in substantial accord with the State's process. The Commission Contract Officer will provide a written determination to the Contractor. The Commission Contract Officer will retain this set of contracting policies and procedures until the final audit of project records.

- 2) If Contractor's process is acceptable, Contractor may use its process to solicit and select subcontractors. If, however, Contractor's process does not substantially meet the State's requirements, Contractor shall solicit a minimum of three bids or provide justification, in advance, to the Contract Officer, as to why a competitive process is not appropriate.
- 3) Thirty days prior to using new policies and procedures, the Contractor shall notify the Commission Contract Officer and provide a detailed, written description of the changes. The Commission Contract Officer will provide a written determination to the Contractor stating whether the revised changes are still in substantial accord with the State's process.

E. Disabled Veteran Business (DVBE) Changes

Contractor must use the DVBE subcontractors/vendors identified in its proposal for the duration of the contract. Replacement of DVBEs must be approved in advance by the Commission. Contractor must notify the Commission Contract Manager in writing. The process of replacing any subcontractor/vendor is defined in subparagraph D above. In addition, the Contractor's written request must include:

- 1) A letter from the Contractor explaining the reason for the change and the identity of the DVBE subcontractor/vendor changed; or
- 2) If the change is not a DVBE, an explanation of the Contractor's efforts (good faith) to replace the DVBE with another DVBE.

Contractor shall submit the request to the Commission Contract Manager, the Commission Contract Officer determines compliance with the DVBE. The Contractor's request and the Commission's approval or disapproval shall not be an excuse for noncompliance with any other provision of law including, but not limited to, the subletting and subcontracting fair practices act or any other contract requirements related to substitution of subcontractors.

Contractor's failure to adhere to the DVBE participation goals in its proposal may be cause for contract termination and recovery of damages under the rights and remedies due the Commission under the Termination clause.

12. REPORTING

A. All reports and deliverables shall be delivered to the Accounting Office and address designated in Exhibit D. Confidential reports and deliverables shall be delivered to the Contracts Officer designated in Exhibit D.

B. Progress Reports

The Contractor shall prepare progress reports which summarize all contract activities conducted by the Contractor for the reporting period, including an assessment of the ability to complete the project within the current budget and any anticipated cost overruns. Each progress report is due to the Commission Contract Manager within 30 days after the end of the reporting period. The Commission Contract Manager will specify the report format, contents, and number of copies to be submitted, see Attachment A-1, Progress Report Format.

C. Final Report and Final Meeting

At the conclusion of the contract's technical work and as provided for in Exhibit A, Work Statement, and Exhibit B, Task Deliverables Schedule, Contractor shall prepare a comprehensive

written Final Report, including an Executive Summary. The Commission Contract Manager will review and approve the Final Report.

Contractor shall also meet with the Commission to present the findings, conclusions, and recommendations. Both the final meeting and the Final Report must be consummated on or before the termination date of the contract. Final Report specifications and meeting are detailed in the Exhibit A, Work Statement and Attachment A-2, Final Report Format.

D. All reports, including reprints, shall include the following legend:

LEGAL NOTICE

THIS REPORT WAS PREPARED AS A RESULT OF WORK SPONSORED BY THE CALIFORNIA ENERGY COMMISSION (COMMISSION). IT DOES NOT NECESSARILY REPRESENT THE VIEWS OF THE COMMISSION, ITS EMPLOYEES, OR THE STATE OF CALIFORNIA. THE COMMISSION, THE STATE OF CALIFORNIA, ITS EMPLOYEES, CONTRACTORS, AND SUBCONTRACTORS MAKE NO WARRANTY, EXPRESS OR IMPLIED, AND ASSUME NO LEGAL LIABILITY FOR THE INFORMATION IN THIS REPORT; NOR DOES ANY PARTY REPRESENT THAT THE USE OF THIS INFORMATION WILL NOT INFRINGE UPON PRIVATELY OWNED RIGHTS. THIS REPORT HAS NOT BEEN APPROVED OR DISAPPROVED BY THE COMMISSION NOR HAS THE COMMISSION PASSED UPON THE ACCURACY OR ADEQUACY OF THE INFORMATION IN THIS REPORT.

13. RECORDKEEPING, COST ACCOUNTING AND AUDITING

A. Cost Accounting

Contractor agrees to keep separate, complete, and correct accounting of the costs involved in developing, installing, constructing, and testing of project-related product(s) funded under the Commission-funded portion of this contract as well as keep separate, complete, and correct account of the economic benefit(s) from project-related product(s) and right(s). The Commission shall have the right to examine Contractor's books of accounts at all reasonable times to the extent and as is necessary to verify the accuracy of Contractor's reports.

B. Accounting Procedures

The Contractor's costs shall be determined on the basis of the Contractor's accounting system procedures and practices employed as of the effective date of this contract. The Contractor's cost accounting practices used in accumulating and reporting costs during the performance of this contract shall be consistent with the practices used in estimating costs for any proposal to which this contract relates; provided that such practices are consistent with the other terms of this contract and provided, further, that such costs may be accumulated and reported in greater detail during performance of this contract. The Contractor's accounting system shall distinguish between direct costs and indirect costs. All costs incurred for the same purpose, in like circumstances, are either direct costs only or indirect costs only with respect to costs incurred under this contract.

C. Allowability of Costs

1) Allowable Costs

The costs for which the Contractor shall be reimbursed under this contract include all costs, direct and indirect, incurred in the performance of work that are identified in the Contractor's proposal and contract Exhibit C, Budget.. Costs must be incurred within the term of the contract. Factors to be considered in determining whether an individual item of cost is allowable include (i) reasonableness of the item, (ii) allocability of the

item to the work, (iii) the Contractor's use of applicable Federal OMB Circulars A-87, A-21, A-122 or FAR Part 31, and (iv) the other terms and conditions of this contract.

2) Unallowable Costs

The following is a description of some specific items of cost that are unallowable; provided, however, that the fact that a particular item of cost is not included shall not mean that it is allowable. Details concerning the allowability of costs are available from the Commission Accounting Office.

- a) Contingency Costs, Imputed Costs, Fines and Penalties, Losses on Contracts, and Excess Profit Taxes are unallowable.
- b) The Commission will pay for State or local sales or use taxes on the services rendered or equipment, parts or software supplied to the Commission pursuant to this contract. The State of California is exempt from Federal excise taxes.
- 3) Except as provided for in this contract, Contractor shall use the Federal OMB Circulars A-87, A-21, A-122 or FAR Part 31 in determining allowable and unallowable costs.

D. Audit Rights

Contractor shall maintain books, records, documents, and other evidence, based on the procedures set forth above, sufficient to reflect properly all costs claimed to have been incurred in performing this contract. The Commission, an agency of the State or, at the Commission's option, a public accounting firm designated by Commission, may audit such accounting records at all reasonable times with prior notice by Commission. Commission shall bear the expense of such audits. It is the intent of the parties that such audits shall ordinarily be performed not more frequently than once every twelve (12) months during the performance of the work and once at any time within three (3) years following payment by Commission of the Contractor's final invoice. However, performance of any such interim audits by Commission does not preclude further audit.

Contractor agrees that the Commission, the Department of General Services, the Bureau of State Audits, or their designated representative shall have the right to review and to copy any records and supporting documentation pertaining to the performance of this contract. Contractor agrees to maintain such records for possible audit for a minimum of three (3) years after final payment, unless a longer period of record retention is stipulated. Contractor agrees to allow the auditor(s) access to such records during normal business hours and to allow interviews of any employees who might reasonably have information related to such records. Further, Contractor agrees to include a similar right of the State to audit records and interview staff in any subcontract related to performance of this contract. (GC 8546.7, PCC 10115 et seq., CCR Title 2, Section 1896)

E. Refund to Commission

If Commission determines, pursuant to subarticle C or otherwise, that any invoiced and paid amounts exceed the actual allowable incurred costs and earned fixed fees (if any), Contractor shall repay such amounts to Commission within thirty (30) days of request or as otherwise agreed by the Commission and Contractor. If Commission does not receive such repayments, Commission shall be entitled to withhold further payments to the Contractor.

F. Audit Cost

The cost of the audit shall be borne by the Commission except when the results of the audit reveal an error detrimental to the Commission exceeding more than ten percent (10%) or \$5,000

(whichever is greater) of 1) the amount audited, or 2) if a royalty audit, the total royalties due in the period audited. In these exceptions, Contractor agrees to reimburse Commission for reasonable costs and expenses incurred by the Commission in conducting such audit.

14. BUSINESS ACTIVITY REPORTING

- A. Contractor shall promptly notify the Commission Contract Manager of the occurrence of each of the following:
 - 1) A change of address.
 - 2) A change in the business name or ownership.
 - 3) The existence of any litigation or other legal proceeding affecting the project.
 - 4) The occurrence of any casualty or other loss to project personnel, equipment or third parties of a type commonly covered by insurance.
 - 5) Contractor's receipt of notice of any claim or potential claim against Contractor for patent, copyright, trademark, service mark and/or trade secret infringement that could affect the Commission's rights.
- B. Contractor shall not change or reorganize the type of business entity under which it does business except upon prior written notification to the Commission. A change of business entity or name change requires an amendment assigning or novating the contract to the changed entity. In the event the Commission is not satisfied that the new entity can perform as the original Contractor, the Commission may terminate this contract as provided in the Termination clause.

15. REVIEW AND NOTICE OF CONFLICTING TERMS

Contractor warrants and attests that it has conducted a detailed review of the terms and conditions of its existing project related third party agreements and has identified all known or reasonably foreseeable conflicts with this contract's terms and conditions and has disclosed the conflicts in writing to the Commission prior to executing this contract. In the event further conflicts are identified, Contractor and Commission agree that these conflicts shall be addressed using the procedure described in the Disputes clause. Nothing in this contract is intended to nullify or obviate any prior third party agreements executed by Contractor. However, the Commission is free to terminate this contract if the conflict impairs or diminishes the value of this contract.

16. CONFIDENTIALITY

A. Determination

The Commission Executive Director makes the final determination of confidentiality. In the event there is a disagreement over the items to be delivered under the contract, the parties shall use the Disputes clause. Those items to be delivered as confidential shall be subject to the Commission Executive Director's determination of confidentiality. If the Contractor wishes to appeal the Executive Director's determination, the appeal shall be made to the full Commission. If the Contractor disagrees with this determination, the Contractor may seek judicial review as per Title 20 CCR 2506, et seq.

AND

The Commission Contract Manager and the Contractor will identify pre-existing confidential or proprietary items to be delivered under this contract.

Or

The Contractor has not identified any confidential or proprietary items to be delivered under this contract.

Or

The Commission agrees to keep confidential the items listed in Exhibit E.

B. Public and Confidential Deliverables

Only those items specifically listed in Exhibit E or in a subsequent determination of confidentiality qualify as confidential deliverables. All deliverables including, but not limited to, progress reports, task deliverables and the Final Report shall not contain confidential information except when the Commission Contract Manager and the Contractor deem it necessary to include confidential information in a deliverable. In such event, the Contractor shall prepare the deliverable in two separate volumes, one for public distribution and one to be maintained in the Commission's confidential records.

C. Future Confidential Information

The Contractor and the Commission agree that during this contract, it is possible that the Contractor may develop additional data or information that the Contractor considers to be protectable as confidential information. The Commission Contract Manager shall provide a copy of the Commission Application for Confidential Designation to the Contractor Project Director. Contractor must list all items and information along with justification for confidentiality and submit the application to the Commission Contract Manager. The Commission Executive Director makes the final determination of confidentiality. Such subsequent determinations will be added to Exhibit E.

D. Identifying and Submitting Confidential Information

All confidential information submitted by the Contractor shall be marked "Confidential" on each document containing the confidential information and delivered in a sealed package to the Commission Contract Officer identified in Exhibit D. The Commission Contract Officer will notify the Commission Contract Manager that the confidential information has been received and is in the Contracts Office for review. The confidential information will only be available to those persons authorized by the Executive Director.

17. INTELLECTUAL PROPERTY ITEMS DEVELOPED PRIOR TO THIS CONTRACT

- A. The Commission makes no claim to intellectual property that existed prior to this contract and was developed without Commission funding.
- B. The Contractor gives notice that the items listed in Exhibit E have been developed without Commission funding and prior to the start of this contract. This list represents a brief description of the prior developed intellectual property. A detailed description of the intellectual property, as it exists on the effective date of this contract, may be necessary if Commission funds are used to further develop the listed intellectual property. This information will assist the parties make an informed decision regarding intellectual property rights and possible repayment obligations.

Or

B. Contractor has not identified any pre-existing intellectual property.

18. RIGHTS OF PARTIES REGARDING INTELLECTUAL PROPERTY

A. Commission's Rights in Deliverables

Deliverables and reports specified for delivery to the Commission under this contract shall become the property of the Commission. The Commission may use, publish, and reproduce the deliverables and reports subject to the provisions of subparagraph C.

B. Rights in Technical, Generated, and Deliverable Data

1) Contractor's Rights

All data (i.e., technical, generated and deliverable data) produced under this contract shall be the property of the Contractor, limited by the license retained by the Commission in 2) below, and the rights the Commission has in deliverables specified above in A).

2) Commission's Rights

Contractor shall provide the Commission with a copy of all technical, generated and deliverable data produced under the contract. Contractor does not have to copy and submit data the Commission Contract Manager has identified as being unusable to the Commission and the PIER program. For instance, some data may not warrant routine copying and shipping because the raw data is too disaggregated or voluminous for practical application. Retention of such data at the Contractor's facility for inspection, review and possible copying by the Contract Manager is expected to be a more efficient use of Commission staff and the Contractor's time and efforts.

For all data (technical, generated and deliverable) produced under this contract, the Commission retains a no-cost, non-exclusive, non-transferable, irrevocable, royalty-free, worldwide, perpetual license to use, publish, translate, produce and to authorize others to produce, translate, publish and use the data, subject to the provisions of subparagraph C.

C. Limitations on Commission Disclosure of Contractor's Confidential Records

- Data provided to the Commission by Contractor, which data the Commission has not already agreed to keep confidential and which Contractor seeks to have designated as confidential, or is the subject of a pending application for confidential designation, shall not be disclosed by the Commission except as provided in Title 20 CCR Sections 2506 and 2507 (or as they may be amended), unless disclosure is ordered by a court of competent jurisdiction.
- 2) It is the Commission's intent to use and release project results such as deliverables and data in a manner calculated to further PIER while protecting proprietary or patentable interests of the parties. Therefore, the Commission agrees not to disclose confidential data or the contents of reports containing data considered by Contractor as confidential, without first providing a copy of the disclosure document for review and comment by Contractor. Contractor shall have no less than 10 working days for review and comment and, if appropriate, to make an application for confidential designation on some or all of the data. The Commission shall consider the comments of Contractor and use professional judgment in revising the report, information or data accordingly.

D. Exclusive Remedy

In the event the Commission intends to publish or has disclosed data the Contractor considers confidential, the Contractor's exclusive remedy is a civil court action for injunctive relief. Such court action shall be filed in Sacramento County, Sacramento, California.

E. Waiver of Consequential Damages

IN NO EVENT WILL THE ENERGY COMMISSION BE LIABLE FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES BASED ON BREACH OF

WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, STRICT TORT, OR ANY OTHER LEGAL THEORY FOR THE DISCLOSURE OF CONTRACTOR'S CONFIDENTIAL RECORDS, EVEN IF THE ENERGY COMMISSION HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. DAMAGES THAT THE ENERGY COMMISSION WILL NOT BE RESPONSIBLE FOR INCLUDE, BUT ARE NOT LIMITED TO, LOSS OF PROFIT; LOSS OF SAVINGS OR REVENUE; LOSS OF GOODWILL; LOSS OF USE OF THE PRODUCT OR ANY ASSOCIATED EQUIPMENT; COST OF CAPITAL; COST OF ANY SUBSTITUTE EQUIPMENT, FACILITIES, OR SERVICES; DOWNTIME; THE CLAIMS OF THIRD PARTIES INCLUDING CUSTOMERS; AND INJURY TO PROPERTY.

- F. Limitations on Contractor Disclosure of Contract Data, Information, Reports and Records
 - 1) Contractor will not disclose the contents of the final or any preliminary deliverable or report without first providing a copy of the disclosure document for review and comment to the Commission Contract Manager. The Contractor shall consider the comments of the Commission Contract Manager and use professional judgment in revising the reports, information or data accordingly.
 - 2) After any document submitted has become a part of the public records of the State, Contractor may, if it wishes to do so at its own expense, publish or utilize the same, but shall include the legal notice stated above.
 - 3) Notwithstanding the foregoing, in the event any public statement is made by the Commission as to the role of Contractor or the content of any preliminary or Final Report of Contractor hereunder, Contractor may, if it believes such statement to be incorrect, state publicly what it believes is correct.
 - 4) No record that is provided by the Commission to Contractor for Contractor's use in executing this contract and which has been designated as confidential, or is the subject of a pending Application for Confidential Designation, except as provided in Title 20, CCR Sections 2506 and 2507, shall be disclosed, unless disclosure is ordered by a court of competent jurisdiction (Title 20 CCR Section 2501, et seq.). At the election of the Commission Contract Manager, the Contractor, its employees and any subcontractor shall execute a "Confidentiality Agreement," supplied by the Commission Contract Manager.
 - 5) Contractor acknowledges that each of its officers, employees, and subcontractors who are involved in the performance of this contract will be informed about the restrictions contained herein and to abide by the above terms.

G. Proprietary Data

Proprietary data owned by the Contractor shall remain with the Contractor throughout the term of this contract and thereafter. The extent of Commission access to the same and the testimony available regarding the same shall be limited to that reasonably necessary to demonstrate, in a scientific manner to the satisfaction of scientific persons, the validity of any premise, postulate or conclusion referred to or expressed in any deliverable hereunder.

H. Preservation of Data

Any data which is reserved to the Contractor by the express terms hereof, and pre-existing proprietary or confidential data which has been utilized to support any premise, postulate or conclusion referred to or expressed in any deliverable hereunder, shall be preserved by the

Contractor at the Contractor's own expense for a period of not less than three years after receipt and approval by the Commission of the Final Report herein.

I. Destruction of Data

Before the expiration of three years and before changing the form of or destroying any such data, the Contractor shall notify Commission of any such contemplated action and Commission may, within thirty (30) days after said notification, determine whether it desires said data to be further preserved. If Commission so elects, the expense of further preserving said data shall be paid for by the Commission. Contractor agrees that Commission may at its own expense, have reasonable access to said data throughout the time during which said data is preserved. Contractor agrees to use its best efforts to identify competent witnesses to testify in any court of law regarding said data or, at Commission's expense, to furnish such competent witnesses.

J. Patent Rights

Patent rights for subject inventions will be the property of Contractor, subject to the Commission retaining a no-cost, nonexclusive, nontransferable, irrevocable royalty-free, worldwide perpetual license to use or have practiced for or on behalf of the State of California the subject invention(s) for governmental purposes. Contractor must obtain agreements to effectuate this clause with all persons or entities, except for the U.S. Department of Energy (DOE), obtaining ownership interest in the patented subject invention(s). Previously documented (whether patented or unpatented under the patent laws of the United States of America or any foreign country) inventions are exempt from this provision.

K. March-In Rights

The Contractor shall forfeit and assign to the Commission, at the Commission's request, all rights on a subject invention if either: 1) Contractor fails to apply for a patent on subject inventions(s) developed under this contract within six months of conceiving or first actually reducing to practice the technology or 2) Contractor or assignee has not taken, or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention. In this event, the Contractor agrees to relinquish all rights, subject to DOE reserved rights, on the subject invention to the Commission. The Commission will have the unfettered right to use and/or dispose of the rights in whatever manner it deems most suitable to help transfer the technology into the market place, including but not limited to, seeking patent protection, or licensing the invention.

L. Commission's Rights to Invention.

Contractor and all persons and/or entities obtaining an ownership interest in subject invention(s) shall include within the specification of any United States patent application, and any patent issuing thereon covering a subject invention, the following statement:

"THIS INVENTION WAS MADE WITH STATE OF CALIFORNIA SUPPORT UNDER CALIFORNIA ENERGY COMMISSION CONTRACT NUMBER «KNUMBER». THE ENERGY COMMISSION HAS CERTAIN RIGHTS TO THIS INVENTION."

M. Commission's Interest in Inventions.

Upon the perfecting of a patent application on any subject invention, Contractor will complete and sign a Uniform Commercial Code (UCC.1) Financing Statement and submit it to the Commission Contract Manager for complete processing. The Commission Contract Manager will review the UCC.1 for complete information and file the satisfactory UCC.1 with the Secretary of State's Office.

N. Copyrights

- 1) Copyrightable material first produced under this contract shall be owned by the Contractor, limited by the license granted to the Commission in 2) below.
- 2) Contractor agrees to grant the Commission a royalty-free, no-cost nonexclusive, irrevocable, nontransferable worldwide, perpetual license to produce, translate, publish, use and dispose of, and to authorize others to produce, translate, publish, use and dispose of all copyrightable material first produced or composed in the performance of this contract.
- 3) Contractor will apply copyright notices to all deliverables using the following form or such other form as may be reasonably specified by Commission.

"©[YEAR OF FIRST PUBLICATION OF DELIVERABLE],

[THE COPYRIGHT HOLDER'S NAME].

ALL RIGHTS RESERVED."

4) Software

In the event software is developed that is not a deliverable under the contract, Contractor shall have the right to copyright and/or patent such software and grants the Commission a royalty-free, no-cost, non-exclusive, irrevocable, non-transferable, worldwide, perpetual license to produce and use the software, its derivatives and upgrades for governmental purposes.

O. Intellectual Property Indemnity

Contractor warrants that Contractor will not, in its supplying of the work under this contract's work statement, knowingly infringe or misappropriate any intellectual property right of a third party, and that it will conduct a reasonable investigation of the intellectual property rights of third parties to avoid such infringement. Contractor will defend and indemnify Commission from and against any claim, lawsuit or other proceeding, loss, cost, liability or expense (including court costs and reasonable fees of attorneys and other professionals) to the extent arising out of: (i) any third party claim that a deliverable infringes any patent, copyright, trade secret or other intellectual property right of any third party, or (ii) any third party claim arising out of the negligent or other tortious act(s) or omission(s) by the Contractor, its employees, subcontractors or agents, in connection with or related to the deliverables or the Contractor's performance thereof under this contract.

19. ROYALTY PAYMENTS TO COMMISSION

In consideration of Commission providing funding to Contractor, Contractor agrees to pay Commission royalties on the terms and conditions hereinafter set forth.

- A. Contractor agrees to pay Commission a royalty of 1.5% (one and one-half percent) of the Sale Price on the sale of each and every project-related product or right that the Contractor receives.
- B. Contractor's obligation to make payments to Commission shall commence from the date project related products or rights are first sold and shall extend for a period of fifteen years thereafter. Payments are payable in annual installments and are due the first day of March in the calendar year immediately following the year during which Contractor receives gross revenues.

- C. Early Buyout. Contractor has the option of paying its royalty obligations to Commission without a pre-payment penalty, provided Contractor makes the payment within two years from the date at which royalties are first due to Commission, in the lump sum amount equal to two (2) times the amount of funds drawn down on the contract.
- D. Contractor agrees not to make any sale, license, lease, gift or other transfer of any Project-Related Products and Rights with the intent of, or for the purpose of, depriving Commission of royalties hereunder. Generally, this means that Contractor will not make any sale, license, lease or other transfer of Project-Related Products and Rights for consideration other than fair market value. Further, Contractor agrees that such activity constitutes breach of this contract and that Contractor agrees to repay within 60 days the amount due under subparagraph C above (Early Buyout).
- E. Contractor acknowledges that a late payment of royalties owed to the Commission will cause the Commission to incur costs not contemplated by the parties. If a royalty payment is not paid when due, Contractor agrees to pay the Commission a late fee equal to two percent (2%) of the payment due. Additionally, Contractor agrees that royalty payments not paid within fifteen (15) days of the due date shall thereupon become debt obligations of Contractor to the Commission, due upon demand and bearing interest at the maximum interest rate allowed by law.
- F. Contractor shall maintain separate accounts within its financial and other records for purposes of tracking components of sales and royalties due to Commission under this contract.
- G. Payments to Commission are subject to audit as provided for under the Recordkeeping, Cost Accounting and Auditing clause.
- H. In the event of default hereunder, Commission shall be free to exercise all rights and remedies available to it herein, and under law and at equity. The occurrence of any of the following events or conditions shall cause default under this contract:
 - 1) Contractor's failure to pay when due, any amount due and payable under the terms of this contract.

20. NOTICES TO PARTIES

Notice to either party may be given by certified mail properly addressed, postage fully prepaid, to the address designated in Exhibit D for each respective party or to such other address as either party shall notify the other in accordance with this section. Such notice shall be effective when received, as indicated by post office records, or if deemed undeliverable by post office, such notice shall be effective nevertheless fifteen (15) days after mailing.

Alternatively, notice may be given by personal delivery to the party at the address designated in Exhibit D. Such notice shall be deemed effective when delivered unless a legal holiday for State offices commences during said 24-hour period, in which case the effective time of the notice shall be postponed 24 hours for each such intervening day.

21. DISPUTES

In the event of a contract dispute or grievance between the Contractor Project Director and Commission Contract Manager, the parties shall use any or all of the following procedures:

A. Commission Dispute Resolution

If the Commission Contract Manager and the Contractor Project Director cannot resolve a contract dispute or grievance, Contractor Project Director and Commission Contract Manager

shall each prepare a package in writing stating the issues in dispute, the legal authority or other basis for their respective positions and the remedy sought. The packages must be submitted to the Commission Dispute Resolution Committee. The Commission Contract Manager will notify the Contractor Project Director of the current Committee members. The Committee shall make a determination on the problem within ten (10) working days after receipt of the package.

If Contractor disagrees with the Committee's decision, Contractor may appeal to the full Commission at a regularly scheduled business meeting. The Committee will provide the Contractor with the current procedures for placing the appeal on a Commission Business Meeting Agenda.

Contractor shall continue with its responsibilities under this contract during any dispute.

B. Binding Arbitration

Should the Commission's Dispute Resolution procedure identified in Paragraph A. above fail to resolve a contract dispute or grievance to the satisfaction of the Contractor, the parties must mutually agree to have the dispute or grievance resolved through binding arbitration. The arbitration proceeding shall take place in Sacramento County, California, and shall be governed by the commercial arbitration rules of the American Arbitration Association (AAA) in effect on the date the arbitration is initiated. One (1) arbitrator who is an expert in the particular field of the dispute or grievance shall resolve the dispute or grievance. The arbitrator shall be selected in accordance with the aforementioned commercial arbitration rules. The decision rendered by the arbitrator shall be final, and judgment may be entered upon it in accordance with the applicable law in any court having jurisdiction thereof. The demand for arbitration shall be made no later than six (6) months after the date of the contract's termination, irrespective of when the dispute or grievance arose, and irrespective of the applicable statute of limitations for a suit based on the dispute or grievance. If the parties do not mutually agree to arbitration, the sole forum to resolve the dispute is State court.

The cost of arbitration shall be borne by the parties as follows:

- 1) The AAA's administrative fees shall be borne equally by the parties;
- 2) The expense of a stenographer shall be borne by the party requesting a stenographic record;
- 3) Witness expenses for either side shall be paid by the party producing the witness;
- 4) Each party shall bear the cost of its own travel expenses;
- 5) All other expenses shall be borne equally by the parties, unless the arbitrator apportions or assesses the expenses otherwise as part of his or her award.

At the option of the parties, any or all of these arbitration costs may be deducted from any balance of contract funds. Both parties must agree, in writing, to utilize contract funds to pay for arbitration costs.

22. STOP WORK

The Commission Contract Officer may, at any time, by written notice to Contractor, require Contractor to stop all or any part of the contract's work tasks. Stop Work Orders may be issued for reasons such as a project exceeding budget, standard of performance, out of scope work, delay in project schedule, misrepresentations, etc.

A. Compliance

Upon receipt of such stop work order, Contractor shall immediately take all necessary steps to comply therewith and to minimize the incurrence of costs allocable to work stopped.

B. Equitable Adjustment

An equitable adjustment shall be made by Commission based upon a written request by Contractor for an equitable adjustment. Contractor must make such adjustment request within thirty (30) days from the date of receipt of the stop work notice.

C. Terminating a Stop Work Order

Contractor shall resume the stopped work only upon receipt of written instructions from the Commission's Contract Officer terminating the stop work order.

23. TERMINATION

A. Purpose

The parties agree that because the Commission is a state entity and contracts on behalf of all Californian ratepayers, it is necessary for the Commission to be able to terminate, at once, upon the default of Contractors and to proceed with the work required under the Contract in any manner the Commission deems proper. Contractor specifically acknowledges that the termination of the Contract by the Commission under the terms set forth below is an essential term of the Contract, without which the Commission would not enter into the Contract. Contractor further agrees that upon any of the events triggering the termination the Contract by the Commission, the Commission has the right to terminate the Contract, and it would constitute bad faith of the Contractor to interfere with the immediate termination of the Contract by the Commission.

B. Breach

The Commission shall provide the Contractor written notice of intent to terminate due to Contractors breach. Contractor will have 15 calendar days to fully perform or cure the breach. In the event Contractor does not cure the breach within 15 days, the Commission may, without prejudice to any of its other remedies, terminate this contract upon five (5) calendar days written notice to Contractor. In such event, Commission shall pay Contractor only the reasonable value of the satisfactorily performed services theretofore rendered by Contractor, as may be agreed upon by the parties or determined by a court of law, but not in excess of the contract maximum payable.

C. For Cause

The Commission may, for cause, and at its option, terminate this contract upon giving thirty calendar (30) days, advance written notice to Contractor. In such event, Contractor agrees to use all reasonable efforts to mitigate its expenses and obligations. Commission will pay Contractor for services rendered and expenses incurred within 30 days after notice of termination which could not by reasonable efforts of Contractor have been avoided, but not in excess of contract maximum payable. Contractor agrees to relinquish possession of equipment purchased for this project with Commission funds to Commission, or Contractor may, with approval of Commission, purchase said equipment as provided by the terms of this contract.

The term "for cause" includes, but is not limited to, the following reasons:

- Partial or complete loss of match funds;
- Reorganization to a business entity unsatisfactory to the Commission;
- Retention or hiring of subcontractors, or replacement or addition of Key Personnel that fail to perform to the standards and requirements of this contract;

- Failure to utilize the DVBE subcontractors/vendors in Contractor's proposal,
- Contractor is not able to pay its debts as they become due and/or Contractor is in default of an obligation that impacts Contractor's ability to perform under this Contract,
- Significant change in State or Energy Commission policy such that the work or product being funded would not be supported by the Commission; or
- In the case of a technical support contract, changes in Commission staff such that Commission staff can do the work or product being funded.

D. Gratuities

The Commission may, by written notice to Contractor, terminate the right of Contractor to proceed under this contract if it is found, after notice and hearing by Commission or by Executive Director of the Energy Commission or his duly authorized representative, that gratuities were offered or given by Contractor, or any agent or representative of Contractor, to any officer or employee of the Commission, with a view toward securing a contract or securing favorable treatment with respect to awarding or amending or making a determination with respect to performance of such contract.

In the event this contract is terminated as provided herein, Commission shall be entitled to (1) pursue the same remedies against Contractor as it could pursue in the event of the breach of the contract by Contractor, and (2) exemplary damages in an amount which shall be not less than three nor more than ten times the cost incurred by Contractor in providing any such gratuities to any such officer or employee, as a penalty, in addition to any other damages to which it may be entitled by law.

The rights and remedies of Commission provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this contract.

E. Advantage

Contractor, team member or subcontractors shall not hire, contract with, or otherwise commit themselves to an advantageous economic contract with the Commission's Contractor/subcontractor who evaluated Contractor's proposal. The Commission reserves the right to cancel the contract.

24. GENERAL TERMS & CONDITIONS

A. It is understood and agreed that certain contract provisions shall survive the completion or termination date of this contract for any reason. The contract provisions include, but are not limited to:

•	"Payments to Contractor"	Section 5
•	"Purchase of Equipment"	Section 7
•	"Recordkeeping, Cost Accounting and Auditing"	Section 13
•	"Business Activity Reporting"	Section 14
•	"Rights of Parties Regarding Intellectual Property"	Section 18
•	"Royalty Payments to Commission"	Section 19
•	"Disputes"	Section 21
•	"Termination"	Section 23
•	"Site Access"	Section 24. D
•	"Indemnification"	Section 24. L

- B. The clause headings appearing in this contract have been inserted for the purpose of convenience and ready reference. They do not purport, and shall not be deemed, to define, limit, or extend the scope or intent of the clauses to which they appertain.
- C. If public hearings on the subject matter dealt with in this contract are held during the period of the contract, and if requested by the Commission, Contractor will make available to testify the personnel assigned to this contract. Commission will reimburse Contractor for labor and travel of said personnel at the contract rates for such work.
- D. The Energy Commission staff or its representatives shall have reasonable access to the construction site or R&D laboratory, and all project records.
- E. This contract shall be conducted in accordance with the terms and conditions of California Energy Resources Conservation and Development Commission (hereafter "Commission") Request for Proposal number 500-01-502, Contractor's proposal, dated wpropsldate, this contract, and the attached exhibits listed below. Contractor's proposal is not attached hereto, but is expressly incorporated by reference into this contract. In the event of conflict or inconsistency between the terms of this contract and Contractor's proposal, this contract and its exhibits shall be considered controlling.
- F. In the interpretation of this contract, any inconsistencies between the terms hereof and the exhibits shall be resolved in favor of the terms hereof.
- G. The Commission reserves the right to seek further written assurances from the Contractor and its team that the work of the project under the contract will be performed consistent with the terms of the contract.
- H. No alteration or variation of the terms of this contract shall be valid unless made in writing and signed by the parties hereto, and no oral understanding or agreement not incorporated herein, shall be binding on any of the parties hereto. Other than as specified herein, no document or communication passing between the parties hereto shall be deemed as part of this contract.
- I. This contract is not assignable by the Contractor, either in whole or in part, without the consent of the State. Consent consists of a formal written contract amendment approved by the Commission and DGS. Such consent shall not be unreasonably withheld.
- J. It is hereby understood and agreed that this contract shall be governed by the laws of the State of California as to interpretation and performance.
- K. Time is of the essence in this contract.
- L. Contractor agrees to indemnify, defend and save harmless the State, its officers, agents and employees from any and all claims and losses accruing or resulting to any and all contractors, subcontractors, suppliers, laborers, and any other person, firm or corporation furnishing or supplying work services, materials, or supplies in connection with the performance of this contract, and from any and all claims and losses accruing or resulting to any person, firm or corporation who may be injured or damaged by Contractor in the performance of this contract.
- M. Contractor warrants, represents and agrees that it and its subcontractors, employees and representatives shall at all times comply with all applicable State contracting laws, codes, rules and regulations in the performance of this contract.
- N. Contractor, and the agents and employees of Contractor, in the performance of this contract, shall act in an independent capacity and not as officers or employees or agents of the State.

- O. No waiver of any breach of this contract shall be held to be a waiver of any other or subsequent breach. All remedies afforded in this contract shall be taken and construed as cumulative, that is, in addition to every other remedy provided therein or by law. The failure of Commission to enforce at any time any of the provisions of this contract, or to require at any time performance by Contractor of any of the provisions therefore, shall in no way be construed to be a waiver of such provisions, nor in any way affect the validity of this contract or any part thereof or the right of Commission to thereafter enforce each and every such provision.
- P. If any provision of this contract or the application thereof is held invalid, that invalidity shall not affect other provisions of the contract.
- Q. In no event shall any course of dealing, custom or trade usage modify, alter, or supplement any of the terms or provisions contained herein.
- R. During the performance of this Contract, Contractor and its subcontractors shall not unlawfully discriminate against any employee or applicant for employment because of race, religion, color, national origin, ancestry, physical handicap, medical condition, marital status, age (over 40) or sex. Contractors and subcontractors shall insure that the evaluation and treatment of their employees and applicants for employment are free of such discrimination. Contractors and subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Government Code Sections 12900, et seq.) and the applicable regulations promulgated thereunder (California Code of Regulations, Title 2, Sections 7285, et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code Section 12990, set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations are incorporated into this Contract by reference and made a part of it as if set forth in full. Contractor and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement.

If this (Award) Contract is funded in part through federal financial assistance, Contractor and its subcontractors shall comply with Title VI of the Civil Rights Act of 1964 (42 United States Codes Section 2000d, et seq.) and Title IX of the Education Amendments of 1972 (20 United States Code Section 1681, et seq.) and shall not unlawfully discriminate against any beneficiary under this Contract because of race, color, national origin, or sex. For purposes of complying with this provision the term "beneficiary" refers to any person or entity in the United States that is intended to benefit directly or indirectly from the performance of this Contract. Contractor and its subcontractors shall inform beneficiaries of their rights under Title VI and Title IX by posting a copy of the Department of Energy's Nondiscrimination Poster, or its equivalent, in their places of business and by referring questions concerning a beneficiary's rights to the Commission's Equal Employment Opportunity Officer.

The Contractor shall include the nondiscrimination and compliance provisions of this article in all subcontracts to perform work under this Contract.

- S. The Contractor shall certify in writing under penalty of perjury, the minimum, if not exact, percentage of recycled content, both post consumer waste and secondary waste as defined in the Public Contract Code, Sections 12161 and 12200, in materials, goods, or supplies offered or products used in the performance of this Agreement, regardless of whether the product meets the required recycled product percentage as defined in the Public Contract Code, Sections 12161 and 12200. Contractor may certify that the product contains zero recycled content. (PCC 10233, 10308.5, 10354).
- T. For any contract in excess of \$100,000:
 - the Contractor recognizes the importance of child and family support obligations and shall fully comply with all applicable state and federal laws relating to child and family support enforcement, including, but

- not limited to, disclosure of information and compliance with earnings assignment orders, as provided in Chapter 8 (commencing with section 5200) of Part 5 of Division 9 of the Family Code; and
- the Contractor, to the best of its knowledge is fully complying with the earnings assignment orders of all employees and is providing the names of all new employees to the New Hire Registry maintained by the California Employment Development Department."
- U. The Government Code Chapter on Antitrust claims contains the following definitions:
 - "Public purchase" means a purchase by means of competitive bids of goods, services, or
 materials by the State or any of its political subdivisions or public agencies on whose behalf
 the Attorney General may bring an action pursuant to subdivision (c) of Section 16750 of the
 Business and Professions Code).
 - "Public Purchasing Body" means the State or the subdivision or agency making a public purchase. Government Code Section 4550 (b).
 - In submitting a bid to a public purchasing body, the bidder offers and agrees that if the bid is accepted, it will assign to the purchasing body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by the bidder for sale to the purchasing body pursuant to the bid. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the bidder. Government Code Section 4552.
 - 2) If an awarding body or public purchasing body receives, either through judgment or settlement, a monetary recovery for a cause of action assigned under this chapter, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, upon demand, recover from the public body any portion of the recovery, including treble damages, attributable to overcharges that were paid by the assignor but were not paid by the public body as part of the bid price, less the expenses incurred in obtaining that portion of the recovery. Government Code Section 4553.
 - Upon demand in writing by the assignor, the assignee shall, within one year from such demand, reassign the cause of action assigned under this part if the assignor has been or may have been injured by the violation of law for which the cause of action arose and (a) the assignee has not been injured thereby, or (b) the assignee declines to file a court action for the cause of action. Government Code Section 4554.
- V. In the event that any provision of this Contract is unenforceable or held to be unenforceable, then the parties agree that all other provisions of this Contract have force and effect and shall not be effected thereby.
- W. Contractor by signing this agreement hereby acknowledges the applicability of Government Code Section 16645 through Section 16649 to this agreement.
 - 1) Contractor will not assist, promote or deter union organizing by employees performing work on a state service contract, including public works contract.
 - 2) No state funds received under this agreement will be used to assist, promote or deter union organizing.
 - 3) Contractor will not, for any business conducted under this agreement, use any state property to hold meetings with employees or supervisors, if the purpose of such meetings is to assist, promote or deter union organizing, unless the state property is equally available to the general public for holding meetings.

4) If Contractor incurs costs, or makes expenditures to assist, promote or deter union organizing, Contractor will maintain records sufficient to show that no reimbursement from state funds has been sought for these costs, and that Contractor shall provide those records to the Attorney General upon request.

Contractor hereby certifies that no request for reimbursement, or payment under this agreement will seek reimbursement for costs incurred to assist, promote or deter union organizing.

WORK STATEMENT Contract Exhibit A

GLOSSARY

Specific terms and acronyms used throughout this work statement are defined as follows:

Acronym	Definition
	(Insert additional rows as needed.)

TASK 1: PROJECT START-UP

Subtask 1.1 Attend Kick off Meeting

The goal of this task is to identify procedures for communication and reporting project status during the contract.

The Contractor shall:

• Attend a "kick off" meeting with the Commission Contract Manager and the Contracts Officer to review: 1) the Commission's expectations for accomplishing tasks described in the Work Statement; 2) the administrative requirements in the terms and conditions of the contract (e.g., invoicing, UCC.1 form filing, prior approvals, data disclosure limitations, progress reporting format and content, etc.); and 3) the Commission's role and responsibilities. The Commission Contract Manager shall designate the location of this meeting.

Deliverable:

• Attend kick-off meeting

Key Personnel:

Example:

(Name of key person for this task that works for the prime contractor. If none, state none. Example: John Doe)

Key Subcontractors:

(Name of key company or name of key person at key company for this task. If none, state none. Davis Construction or

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Subtask 1.2 Document Matching Funds

The goal of this task is to document the match funds for this contract. The Contractor need not resubmit match fund documentation if it was provided in the Contractor's proposal and the information submitted is still valid. The Contractor, however, shall assist the Commission Contract Manager to locate this proposal information, upon request. In the event match fund sources change during the contract term, the Contractor shall immediately notify the Commission Contract Manager for approval.

Documentation of match fund commitments shall be received, reviewed and approved in writing by the Commission Contract Manager before any PIER funds under this contract are disbursed and PIER-funded work on technical tasks may begin.

The Contractor shall:

- Provide the following information about the match funding to be used to conduct this project:
 - 1. Amount and source of each cash match funding, including a contact name, address and telephone number.
 - 2. Description, documented market or book value, and source of each in-kind contribution, including a contact name, address and telephone number.
 - If the in-kind contribution is equipment or other tangible or real property, the Contractor shall identify its owner and provide a contact name, address and telephone number, and the address where the property is located.
 - 3. Written commitment from each source of cash match funding or in-kind contributions that these funds or contributions have been secured or will be secured prior to the date(s) when the funds or in-kind contributions are required for project expenditures.
 - 4. If there are no match funds at the start of the contract, then state such in the letter.

In the event the Contractor has not provided the written match fund commitments for this project by three months after the contract execution date, the Commission may, at its option and in its unfettered discretion, terminate this contract by advising Contractor in writing that the contract will be terminated in thirty (30) calendar days.

Deliverables:

- Letter and documentation confirming matching fund sources.
- Documentation of changes as they occur during the contract term.

Key Personnel:

(Name of key person for this task that works for the prime contractor. If none, state none. Example: John Doe)

Key Subcontractors:

(Name of key company or name of key person at key company for this task. If none, state none.

Example: Davis Construction or

Susie Smith, Perfect Turbines)

Task 1.3 Identify and Obtain Required Permits

The goal of this task is to obtain all permits required for work completed under this contract in advance of the date they are needed to keep the project schedule on track.

The Contractor shall:

- If no permits are required to conduct this project, the Contractor shall state this finding in writing to the Commission Contract Manager.
- Provide the following information about permits required for this project:
 - Type of permit
 - Name, address and telephone number of the permitting jurisdictions or lead agencies
 - Schedule the Contractor will follow in applying for and obtaining these permits
 - A copy of each approved permit
- Submit this information to the Commission Contract Manager at the kick-off meeting. The schedule for obtaining permit(s) will be discussed at the kick-off meeting, and a timetable for submitting the updated lists and the copies of the permit(s) will be developed.
- In all cases, permits must be identified in writing and obtained before any costs related to the use of the permit(s) are incurred for which PIER reimbursement will be requested under this contract.
- Permit expenses are not reimbursable through the contract; therefore, the PIER budget for this task will be zero dollars.

Deliverables:

- A statement that no permits are required or
- A list of all permits required for this project
- Updated list of permits as they change during the contract term.
- A copy of each approved permit.

Key Personnel:

(Name of key person for this task that works for the prime contractor. If none, state none. Example: John Doe)

Key Subcontractor:(Name of key company or name of key person at key company for this task. If none, state none.

Example: Davis Construction or

Susie Smith, Perfect Turbines)

TASK 2.0 TECHNICAL TASKS

The project's work scope involves the following technical tasks:

Examples only: TASK 2.1: (Title)

TASK 2.2: (*Title*)
TASK 2.3: (*Title*)
TASK 2.4: (*Title*)
TASK 2.5: (*Title*)

TASK 2.n-1: Technology Transfer Activities TASK 2.n: Production Readiness Plan

Critical Project Reviews

Critical Project Reviews shall take place at key points in a given project. These generally occur at predetermined points to see if the overall project goal is being achieved. The Commission will conduct Critical Project Reviews during or at the conclusion of the following tasks:

(Insert the task numbers and titles here)

Critical Project Reviews are meetings between the Contractor, the Commission Contract Manager and other individuals selected by the Commission Contract Manager to provide objective, technical support to the Commission. Meeting participants may include PIER Program Team Lead, Contracts Officer, Commission Technical Staff and Management. The purpose of these meetings is to discuss with the Contractor the status of the project and its progress toward achieving its goals and objectives. These meetings may take place either at the Energy Commission offices in Sacramento, or at another reasonable location determined by the Commission Contract Manager and the Contractor.

Before each Critical Project Review meeting, the Contractor shall provide the relevant task deliverable(s) to the Commission Contract Manager and any other designated reviewers sufficiently in advance to permit review of the deliverable document(s) before the review meeting. If not already defined in the Work Statement, the Commission Contract Manager shall specify the contents of the deliverable document(s).

At the Critical Project Review meeting, the Contractor shall present the required technical information and participate in a discussion about the project with the Commission Contract Manager and other meeting attendees, if any.

Following the Critical Project Review meeting, the Commission Contract Manager will determine whether the Contractor is complying satisfactorily with the Work Statement and whether the project is demonstrating sufficient progress toward achieving its goals and objectives to warrant continued PIER financial support for the project.

As an outcome of each Critical Project Review, the Commission Contract Manager will provide a written response within 10 working days to the Contractor indicating his or her conclusions about the project to date. The written response may include a requirement for the Contractor to revise one or more deliverables that were included in the Critical Project Review. After each review, the Commission Contract Manager may reassess and reallocate the tasks, schedule, deliverables and budget for the remainder of the work including not proceeding with one or more tasks.

If the Commission Contract Manager concludes that satisfactory progress is not being made, this conclusion will be referred to the Commission's Research, Development and Demonstration Policy Committee for its concurrence.

Technical Task Descriptions

Task 2.1 Insert Task Name

The goal of this task is to . . .(Complete the sentence)

Successful completion of this task will be measured by . . . (Complete the sentence)

This goal helps to achieve the project objectives by. . . . (Complete the sentence)

The Contractor shall:

- Active verb (Complete the sentence)
- Active verb (Complete the sentence)

Deliverables:

- 1st Deliverable
- 2nd Deliverable

Key Personnel:

(Name of key person for this task that works for the prime contractor. If none, state none.

Example: John Doe)

Key Subcontractors:

(Name of key company or name of key person at key company for this task. If none, state none.

Example: Davis Construction or

Susie Smith, Perfect Turbines)

Task 2.2 - 2.n-2

(Repeat the process as shown above)

Task 2.n-1 Technology Transfer Activities

The goal of this task is to develop a plan to make the knowledge gained, experimental results and lessons learned available to decision-makers in industry and government.

The Contractor shall:

- Prepare a Technology Transfer Plan. The plan shall explain how the knowledge gained in this project will be made available to the public. The level of detail expected is least for research-related projects and highest for demonstration projects. Key elements from this report shall be included in the Final Report for this project.
- Submit the draft Technology Transfer Plan to the Commission Contract Manager for review and comment. Once agreement on the draft plan has been reached, the final plan shall be submitted to the Commission Contract Manager for written approval, which shall be provided within 5 working days of receipt.
- Conduct technology transfer activities in accordance with the Technology Transfer Plan. These activities shall be reported in the Monthly Progress Reports.

Deliverables:

- Draft Technology Transfer Plan
- Final Technology Transfer Plan

Key Personnel:

(Name of key person for this task that works for the prime contractor. If none, state none.

Example: John Doe)

Key Subcontractors:

(Name of key company or name of key person at key company for this task. If none, state none.

Example: Davis Construction or

Susie Smith, Perfect Turbines)

Task 2.n Production Readiness Plan (Insert this task if required.)

The goal of the plan is to determine the steps that will lead to the mass manufacturing of the technologies developed in this project.

The Contractor shall:

- Prepare a Production Readiness Plan. The degree of detail in the Production Readiness Plan discussion should be proportional to the complexity of producing the proposed product and its state of development. The plan shall include as appropriate but not be limited to:
 - Identification of critical production processes, equipment, facilities, personnel resources, and support systems that will be needed to produce a commercially viable product;
 - Internal manufacturing facilities, as well as supplier technologies, capacity constraints imposed by the design under consideration, identification of design critical elements and the use of hazardous or non-recyclable materials. The product manufacturing effort may include "proof of production processes";
 - A projected "should cost" for the product when in production;
 - The expected investment threshold to launch the commercial product;
 - An implementation plan to ramp up to full production.
- Submit the draft Production Readiness Plan to the Commission Contract Manager for review and comment. Once agreement on the draft plan has been reached the final plan shall be submitted to the Commission Contract Manager for written approval, which shall be provided within 5 working days of receipt.

Deliverables:

- Draft Production Readiness Plan
- Final Production Readiness Plan

Key Personnel:

(Name of key person for this task that works for the prime contractor. If none, state none.

Example: John Doe)

Key Subcontractors:

(Name of key company or name of key person at key company for this task. If none, state none.

Example: Davis Construction or

Susie Smith, Perfect Turbines)

TASK 3.0 REPORTING TASKS

TASK 3.0 Reporting Tasks

All **public** reports shall be delivered to the Accounting Office address listed on Exhibit D.

All **confidential** reports shall be sealed and marked "Confidential Deliverable" and submitted to the Contracts Officer listed on Exhibit D.

3.1 Monthly Progress Reports

The objective of this task is to periodically verify that satisfactory and continued progress is made towards achieving the research objectives of this program.

The Contractor shall prepare a written Monthly Progress Report to the Commission Contract Manager by the 30th of each month, starting after contract execution and shall continue each following month until the Final Report has been accepted by the Commission Contract Manager. The Commission Contract Manager shall provide the format and content requirements for these reports. Attachment 1 provides the format and content requirements for these reports.

Deliverables:

Monthly progress reports

Key Personnel:

(Name of key person for this task that works for the prime contractor. If none, state none. Example: John Doe)

Key Subcontractors:

(Name of key company or name of key person at key company for this task. If none, state none.

Example: Davis Construction or

Susie Smith, Perfect Turbines

3.2 Final Report

The Final Report shall be a public document. If the Contractor has obtained confidential status from the Commission and will be preparing a confidential version of the Final Report as well, the Contractor shall perform the following tasks for both the public and confidential versions of the Final report. Attachment 2 provides the format and content requirements.

Subtask 3.2.1 Final Report Outline

The Contractor shall:

- Prepare an outline of the Final Report describing the original purpose, approach and results
 of the project. The Commission Contract Manager shall provide the suggested format for
 this outline.
- Submit the final report outline to the Commission Contract Manager for review and approval. Once agreement on the outline has been reached, it shall be submitted to the Commission Contract Manager within 5 working days. The Commission Contract Manager shall provide written approval within 5 working days of receipt.

Deliverables:

• Final Report Outline

Subtask 3.2.2 Draft Final Report

The Contractor shall:

- Prepare the Draft Final Report for the project. The format of the report shall follow the approved outline.
- Submit the draft final report to the Commission Contract Manager for review and comment.
 The Commission Contract Manager will provide written comments within 20 working days
 of receipt. The Contractor shall revise the draft final report incorporating the Commission
 Contract Manager's corrections and required changes. Once agreement on the draft final
 report has been reached, the Commission Contract Manager shall provide written approval
 within 5 working days.

Deliverables:

• Draft Final Report

Subtask 3.2.3 Final Report

The Contractor shall:

Submit the final report within 10 working days of receipt of the approval letter. The Contractor shall submit two unbound copies and one electronic copy of the Final Report to the Commission Contract Manager.

Deliverables:

• Final Report

Key Personnel:

(Name of key person for this task that works for the prime contractor. If none, state none. Example: John Doe)

Key Subcontractors:

(Name of key company or name of key person at key company for this task. If none, state none.

Example: Davis Construction or

Susie Smith, Perfect Turbines

Task 3.3 Final Meeting

A final meeting for contract closeout will be attended by, at a minimum, the Contractor and the Commission Contract Manager. The technical and administrative aspects of contract closeout will be discussed at the meeting, which may be two separate meetings at the discretion of the Commission Contract Manager.

The technical portion of the meeting shall present findings, conclusions, and recommended next steps (if any) for the project. The Commission Contract Manager will determine the appropriate meeting participants.

The administrative portion of the meeting shall be a discussion with the Commission Contract Manager and the Contracts Officer about the following contract closeout items:

- What to do with any state-owned equipment (Options)
- Need to file UCC-1 form re: Commission's interest in patented technology
- Commission's request for specific "generated" data (not already provided in contract deliverables)
- Need to document Contractor's disclosure of "subject inventions" developed under the contract
- "Surviving" contract provisions, such as repayment provisions
- Final invoicing and release of retention

Deliverables:

- Meeting participation
- Written documentation of meeting agreements and all pertinent information.

Key Personnel:

(Name of key person for this task that works for the prime contractor. If none, state none.

Example: John Doe)

Key Subcontractors:

(Name of key company or name of key person at key company for this task. If none, state none.

Example: Davis Construction or

Susie Smith, Perfect Turbines

Content and Format of Progress Reports

PROGRESS REPORT for Project Title, Contract Number Month, Year

Contractor Project Manager: Commission Project Manager:

What we planned to accomplish this period

[This is taken directly from the section on "What we expect to accomplish during the next period" from the last progress report]

What we actually accomplished this period

[Concise description of major activities and accomplishments.]

How we are doing compared to our plan

[Explain the differences, if any, between the planned and the actual accomplishments. Describe what needs to be done, if anything, to get back on track.]

Significant problems or changes

[Describe any significant technical or fiscal problems. Request approval for significant changes in work scope, revised milestone due dates, changes in key personnel assigned to the project, or reallocation of budget cost categories. If none, include the following statement: "Progress and expenditures will result in project being completed on time and within budget."]

What we expect to accomplish during the next period

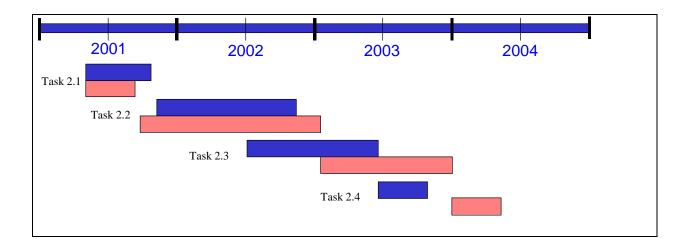
[Concise description of major activities and accomplishments expected. This will be transferred to the next progress report]]

Status of Milestones and Deliverables:

[This should be the complete list as contained in the revised scope of work and Exhibit B. Highlight differences between actual and planned.]

Description	Start	Date	Due	Date	Status (%)
Identify top 3 assessment candidates	Planned 4/15/12	Actual 4/15/12	Planned 5/1/12	Actual 5/1/12	Ontime 100%
Develop test plan	4/20/12	4/10/12	7/7/12	6/10/12	Ahead 100%

6/1/12



Overall schedule for the _____ project.

[Planned is solid blue, actual is red striped. This work flow diagram needs to correlate with the schedule in Exhibit B. This example has been prepared as a Word Picture, but a comparable Excel diagram or Gantt chart is fine.]

Overview of Fiscal Status: (See invoices for detail.)

[It is useful to track the rate of expenditure of project funds. The most useful way to do this is to compare the actual expenditure rate with the planned expenditure rate. You get the planned rate at the beginning of the project, so it becomes a baseline. If you change course at a critical project review, you should show the original and the modified baseline, and then track against the new one.]

Photographs:

[Include photographs where appropriate to document progress.]

Notes:

The tracking for tasks and money is generally done at the major task level, but this depends on the project and fiscal controls.

Notice that there is no technical detail in these reports. This should come in specific deliverables so that critical project management information doesn't get lost. If the contractor is reporting monthly, but submitting invoices quarterly, then use the three monthly reports as an equivalent quarterly report. Don't make them write another report just to get paid.

The progress report on each project should be 1-2 pages long (plus photographs) and take about 1 hour to prepare for each reporting period.

RFP Attachment 8 (A-2)

Final Report Instructions

Final Report Contents

PIER Reports contain the following sections:

Cover Page and Title Page

Legal Notice

Acknowledgement Page

Table of Contents

Preface

Executive Summary

Abstract

Introduction

Project Approach

Project Outcomes

Conclusions and Recommendations

Endnotes

References

Glossary

Appendices

Attachments

Please contact Susan Patterson (916) 654-4992, <u>spatters@energy.state.ca.us</u> before starting your final report. She will explain the process and go over any questions you have. It is best if both the Contractor and the Commission Contract Manager participate in this discussion.

Please use the MS Office Suite for your final reports. The version currently in use at the Commission is "97" operating on Windows 98. Please contact us if significant portions of the report will be in other programs.

Cover Page and Title Page

Please create one page with the following information. It will be used to create the cover and title pages.

- Title of the Report
- Name of primary author(s) or principal investigator
- Author's company, organization or affiliation
- Location of author's company, organization or affiliation (City, State)
- Name of Energy Commission Project Manager
- PIER Program Area
- PIER Program Area Lead
- Contract Number
- Amount of Contract (Total including amendments.)
- Publication Number (Ask Susan Patterson, (916) 654-4992 for this number.)
- Publication Date (Month and Year. Verify with Susan Patterson.)

Legal Notice

Use the following notice:

Legal Notice

This report was prepared as a result of work sponsored by the California Energy Commission (Commission, Energy Commission). It does not necessarily represent the views of the Commission, its employees, or the State of California. The Commission, the State of California, its employees, contractors, and subcontractors make no warranty, express or implied, and assume no legal liability for the information in this report; nor does any party represent that the use of this information will not infringe upon privately owned rights. This report has not been approved or disapproved by the Commission nor has the Commission passed upon the accuracy or adequacy of this information in this report.

NOTE: The abbreviation "CEC" is not allowed in final reports. Chose either Commission or Energy Commission throughout the report. Be consistent with one of the choices, and use it throughout the report.

Acknowledgement Page

This is the place for the author or principal investigator to acknowledge or express appreciation to those who participated in the project. This may be a paragraph, or a list of names, and if appropriate their affiliations.

Table of Contents

Sections to be included in the Table of Contents are as follows:

Preface

Executive Summary

Abstract

- 1. Introduction
 - Background and Overview (Why this project was necessary)
 - Project Objectives (What you planned to accomplish)
 - Report Organization
- 2. Project Approach (What you did to accomplish your objectives)
- 3. Project Outcomes (What happened)
- 4. Conclusions and Recommendations
 - Conclusions (What you learned from what happened)
 - Commercialization Potential
 - Recommendations (What you think should occur next)
 - Benefits to California

Endnotes

References

Glossary

List of Figures

List of Tables

Appendices

Attachments

Preface

Fill in the contract name, contract number, report title, organization, and research area, and numbers in the second to the last paragraph. Use the following Preface:

Preface

The Public Interest Energy Research (PIER) Program supports public interest energy research and development that will help improve the quality of life in California by bringing environmentally safe, affordable, and reliable energy services and products to the marketplace.

The PIER Program, managed by the California Energy Commission (Commission), annually awards up to \$62 million to conduct the most promising public interest energy research by partnering with Research, Development, and Demonstration (RD&D) organizations, including individuals, businesses, utilities, and public or private research institutions.

PIER funding efforts are focused on the following six RD&D program areas:

- Buildings End-Use Energy Efficiency
- Industrial/Agricultural/Water End-Use Energy Efficiency
- Renewable Energy
- Environmentally-Preferred Advanced Generation
- Energy-Related Environmental Research
- Strategic Energy Research.

What follows is the final report for the [Contract Name,] [Contract Number,] conducted by the [Company/Organization/Affiliation]. The report is entitled [Report Title]. This project contributes to the [PIER Program Area] program.

For more information on the PIER Program, please visit the Commission's Web site at: http://www.energy.ca.gov/research/index.html or contact the Commission's Publications Unit at 916-654-5200.

Executive Summary

A final report in miniature, containing all key information. Summarizes the introduction, purpose, project objectives, project outcomes, conclusions, recommendations and Benefits to California. It is intended to be short, bullet formatting is suggested. Assume a non-technical, management-level readership. You may want to write this as if you will hand it out at a trade show. Emphasize the benefits of the project and include who should care and why. Put on the hat of an inquisitive, reasonably well-educated lay reader who may be interested in purchasing or implementing the subject technology. Pretend that they just paid for this research project and they want to understand how and why you spent their money.

If your project has more than one project, repeat this organization for each project area. The Executive Summary needs to summarize the report, not present new information found nowhere else in the document. Go the Commission web site for further examples.

Abstract

This section should be the technical counterpart to the executive summary. Less marketing and sales oriented than the Executive Summary. This should be similar to what you would find in a technical trade periodical. Limited to 250 words, essentially a very brief, Executive Summary. The Abstract covers the

purpose, objectives, outcomes and conclusions. Contains 5-10 keywords for computer searches. Geared toward a more technical audience.

Introduction

- Background and Overview (Why this project was necessary) Provide relevant background, identify
 this project's subject area and the goals of this research. Use Stages and Gates terminology, where
 appropriate, to identify what stage the project has reached in its path to market. Refer to the contract
 for this information.
- Project Objectives (What you planned to accomplish) Present the technical and economic objectives
 for your project. The objectives need to contain the way(s) to measure or know the success of having
 reached the objective. Use Stages and Gates terminology where appropriate. These should be taken
 from the contract and should reflect any changes made during critical project reviews or at other
 times during the course of the project. (Describe why these changes were made in the Project
 Approach section.)

Each objective shall be separately identified, a useful form is:

Project objectives were to:

- Verify (an action verb followed by relevant text)....
- Determine....
- Measure...
- Develop....
- Report Organization Provides a roadmap to the rest of the report. If there are separate final reports
 for a multitasked project, set the context in Background section and refer the reader to their location
 here.

Project Approach

This section discusses the tasks you undertook and your approach to the research (What you did to accomplish your objectives). Discuss the testing procedures you undertook and the system modifications and improvements you made.

Project Outcomes

This is where you present your results (What happened). Organize this section so that results are presented in the same order as the objectives. A short version of each Outcome should be stated in bullet form. Supporting paragraphs that describe each Outcome should follow each bullet.

There can be more Outcomes than there were Objectives. For example, there may be more than one Outcome per Objective. It is also possible to have an unanticipated Outcome during your research. However, you can not have stranded objectives; all Objectives, whether met or not, must be discussed in this section. If this section is particularly long, then it is useful to create a summary at the end of this section where all of the bullets are drawn together as a summary.

Conclusions and Recommendations

Conclusions (What you learned from what happened) - Organize the Conclusions in the same order as
Objectives and Outcomes. You may have Conclusions that are broader than individual Objectives and
Outcomes. Please present these after you present the individual Conclusions. Conclusions must be
drawn from evidence presented in the report.

- Commercialization Potential This is where you should directly address stages and gates. Explain where your project is in stages and gates. If your project had a task to prepare a Production Readiness Plan or a similar effort related to assessing where the research is in relationship to being used in its relevant markets (i.e. Stages and Gates), this is the place to discuss that task.
- Recommendations (What you think should occur next) Recommendations should derive from the Conclusions presented. Recommendations specific to individual Objectives, Outcomes and Conclusions should be presented in the original order. General Recommendations should follow. Use Stages and Gates terminology where appropriate. What is the next stage for this project?
- Benefits to California This section discussed two issues: (1) what benefits has California already received from this contract, if applicable, and (2) if this project is successful and the results widely used, how will California benefit. These benefits need to be related to the problems this research was intended to address. Refer to the Introduction section of the report.

Endnotes

Endnotes are preferred to footnotes.

Glossary

If there are more than 10 acronyms then a glossary with definitions for each acronym should be provided at the end of the report.

References

This is where you list all documents referred to in the body of the report. List references in standard bibliographic format. Be sure to check that shorthand references contained in the body of the report are accurate. Any documents referred to in the Appendices should be listed in the reference section in the appropriate Appendix.

Appendices

Designated by Roman numerals.

Attachments

If absolutely required, designated by Roman numerals.

Here is some additional guidance on how to ensure that the reports are technically accurate and internally consistent:

- 1. Put on the hat of an inquisitive, reasonably well-educated lay reader. Pretend that they just paid for this research project and they want to understand how and why you spent their money.
- 2. Apply the test of completeness. Are all the pieces there? Are all the references clear and do those in the text match those in the reference section? Are the relationships between the partners and the players clearly explained?
- 3. Apply the test of logic. Does the document flow and make sense? Is the need for the research clearly described? Is the technical approach clearly described? Do the conclusions make sense? Are they drawn from the analysis? Do the numbers check? Is it clear how the numbers were derived?
- 4. If the project didn't do everything it intended to do, explain.
- 5. The final report must primarily address the contract work statement. Doing this will help manage the scope and the effort required for this report. A) Some research projects are Stage X (e.g. one stage of stages and gates) of a longer-term program and all work done during the time the Commission was involved was funded by all of the partners. B) In other cases, the work being done in this Stage of the program had more tasks than the Commission participated in, although some of the results of this work may have impacted, or been impacted by the other tasks. The Commission funded portion of the research project (or program) needs to be clearly differentiated from the overall program of which this portion of the research is a part. Comments about the program should not be intermingled with those about the project.
- 6. The objectives of the research project need to be clearly stated. The objectives of the Commission funded research project need to be clearly differentiated from the objectives of the overall program of which the research is a part. The objectives of the program should not be intermingled with the objectives of the project. If some objectives of the program will be performed elsewhere, or at another time, this needs to be explained. The report should then stay focused on the objectives of this project.
- 7. There needs to be a clear relationship between the objectives and the outcomes. The outcomes of the Commission funded research project need to be clearly differentiated from the outcomes of the overall program of which the research is a part. The outcomes of the program should not be intermingled with the outcomes of the project.
- 8. The methods used to conduct the research need to be explained.
- 9. Data that is presented in the report needs to be analyzed. If you present a picture, graph or table, be sure that you discuss it in the text, not just refer to it.
- 10. Each conclusion needs to be substantiated by the analysis contained in the report.
- 11. Figures and Tables must clearly relate to, and be consistent with the text, and vice versa. (If the text says the generator had a capacity of 30 kW, the table shouldn't say it was 31.2 kW.)
- 12. Use consistent references to report performance specifications and results. For example, if a piece of equipment is to be referred to by its nominal nameplate rating then use that reference consistently throughout the report. If however the desired number was the measured performance of the device, (almost always different from nameplate) then consistently use that measured number. Do not mix the two in the narrative.
- 13. The text needs to clearly refer to the attached appendices. It should also explain how the data in the appendices matters to the text. If it doesn't really matter, it probably should be dropped. (You may still need it because it is a deliverable according to the contract, so check this carefully.) References to multi-page appendices need to be specific to the page or section of the appendix, not just a general reference to Appendix X.

Deliverables, Due Dates and Gantt Chart (Contract Exhibit B)

Name of Company or Organization

Task Number	Task Name	Deliverable(s)	Planned Start Date	Planned Completion Date
1.0	Project Start-Up Tasks			
1.1	Attend Kick-off Meeting	Kick-Off Meeting		
1.2	Document Match Funding	Cash/In-kind lists, commitment letters		
		Permit plan or no permits required letter, updated list of		
1.3	Identify Required Permits	permits, and a copy of approved permits		
2.0	Technical Tasks			
2.1	Name of Task 2.1	1. Name of Deliverable for Task 2.1		
2.2	Name of Task 2.2	1. Name of Deliverable for Task 2.2		
2.3	Name of Task 2.3	1. Draft of Deliverable for Task 2.3		
	Critical Project Review			
		2. Final of Deliverable for Task 2.3		
2.4	Name of Task 2.4	1. Name of Deliverable for Task 2.4		
2.5	Name of Task 2.5	1. Name of Deliverable for Task 2.5		
2.6	Name of Task 2.6	1. Name of Deliverable for Task 2.6		
2.7	Name of Task 2.7	1. Draft of Deliverable for Task 2.7		
	Critical Project Review			
		2. Final of Deliverable for Task 2.7		
2.8	Name of Task 2.8	1. Name of Deliverable for Task 2.8		
2.9	Name of Task 2.9	1. Name of Deliverable for Task 2.9		
2.10	Name of Task 2.10	1. Name of Deliverable for Task 2.10		
3.0	Reporting Tasks	g Tasks		
3.1	Monthly Progress Reports	Monthly Progress Reports		
3.2	Final Report			
3.2.1	Final Report Outline	Final Report Outline		
3.2.2	Draft Final Report	Draft Final Report		
3.2.3	Final Report	Final Report		
3.3	Final Meeting	Meeting Participation		
		Written Documentation of Meeting Agreements		

Deliverables, Due Dates and Gantt Chart (Contract Exhibit B) Name of Company or Organization

	2002	2003	2004	2005	
Tas	k Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec	
1.1					
1.2	2				
1.3	3				
2.1					
2.2	2				
2.3	В				
2.4	1				
2.5					
2.6					
2.7					
2.8	3				
2.9	3				
2.1	0				
3.1					
3.2	2				
3.3	3				

BUDGET EXHIBIT C

INSTRUCTIONS FOR PROVIDING BUDGET INFORMATION

The Prime Contractor and Major Subcontractors must submit information on all the Budget Exhibit forms described below. (For purposes of this RFP, a "Major" Subcontractor is one that is requesting \$100,000 or more of PIER funds. "Minor" Subcontractors, i.e., those requesting less than \$100,000 of PIER funds, do not need to provide detailed budget forms and spreadsheets.)

Instructions for Budget Exhibit C1, Personnel Hourly Rates and Benefits

- List the names of Key Personnel, important personnel, and the name or job classification for other personnel. Include Minor Subcontractors and consultants if they are Key Personnel.
- For each person or job classification list: direct hourly rate (\$), fringe benefit rate (%), and fully-loaded hourly rate (\$) [hourly rate plus fringe benefits, overhead, G&A and profit, as applicable].
- If rates will change over the duration of the project, provide estimated rates for appropriate time periods.
- If rates will change if this project extends beyond the anticipated completion date, please provide estimated rates for one year past the anticipated completion date.

<u>Instructions for Budget Exhibit C2, Calculation of Fringe Benefits, Overhead, General & Administrative Expenses, and Profit Rates</u>

You must include documentation in your cost proposal to support your General and Administrative rate and Overhead rate. If the Federal Defense Contracting Audit Agency (DCAA), any other governmental entity or private audit firm has audited and accepted your rates, please provide this documentation.

- Provide fringe benefit, overhead, G&A, and profit rates (%). Different types of overhead (e.g., direct overhead and indirect overhead) may be combined in a single column if they are applied to the same items. Change the column headings, if necessary, to match your chart of accounts. *Profit cannot exceed 10% for the Prime Contractor and subcontractors*.
- List the items to which you apply each type of overhead.
- Show the formulas you use to calculate billable charges for each of the listed expense items (the categories in the Exhibit C3, Detailed Task Budget spreadsheets). *The Prime Contractor may not apply profit to subcontractor invoices.*
- If rates or formulas will change if this project extends beyond the anticipated completion date, please provide estimated rates for one year past the anticipated completion date.

Instructions for Budget Exhibit C3, Detailed Task Budgets

General

- The Prime Contractor and all "Major" Subcontractors should use the Excel workbook (file: Detailed Task Budgets C3) to present detailed budget information.
- Do NOT enter data in the blue cells they contain formulas. Insert additional rows if necessary, but check the subtotals in the blue cells to ensure that the proper range of cells is included in the calculation.
- Do NOT enter data in the last spreadsheet (Summary tab). This is the total project budget, which is calculated from data in the prior spreadsheets. The Summary spreadsheet is protected, but with no password. If you need to add tabs for additional technical tasks (and if you are experienced working with Excel), you can unprotect the Summary, add rows for the additional tasks, and correct the Technical Activity Subtotals.

Task Budgets - Spreadsheet Tabs

- Provide budget figures for the task levels indicated by the tabs in the workbook, i.e., Task 1.0, Task 2.1, 2.2, 2.3, ..., and Task 3.1, 3.2, 3.3.
- Task 1.1, Kick-off Meeting, is reimbursable by PIER. Budget for one or two people for technical and administrative discussions with PIER staff in Sacramento. Tasks 1.2 and 1.3 are not reimbursable by PIER.
- For appropriate (not all) Technical Tasks (2.1, 2.2, ...), budget for Critical Project Reviews, which are reimbursable by PIER. These may be in Sacramento or at your facility.
- For Task 3.2, the Final Report, budget for 1-2 months for your top technical person and/or best technical writer.
- Task 3.3, the Final Meeting, is reimbursable by PIER. Budget for one or two people for technical and administrative discussions with PIER staff, either in Sacramento or at your facility.

Detailed Budgets for Each Task

• **PERSONNEL** (**DIRECT LABOR**): List the names of Key Personnel and important personnel, and the names or job classifications for other personnel. With each name or job classification, include the number of labor hours for the task and the hourly salary.

Labor costs may be presented in either of two ways: (1) with hourly salary, fringe benefits, and overhead/G&A/profit on direct labor shown as separate entries, or (2) using fully-loaded labor rates, with no fringe benefits shown, and no overhead/G&A/profit on direct labor included in the overhead, G&A and profit entries. In the latter case, change the heading "Direct Labor" to "Loaded Labor".

The labor costs for each task must be consistent with the hourly rates in Budget Exhibit C1 and the formulas in Budget Exhibit C2.

- **FRINGE BENEFITS**: Indicate the total fringe benefits for the above labor costs. If fringe benefits are included in the hourly labor rates, enter "0".
- TRAVEL: List each trip (or category of trip), purpose of trip, and itemization of costs.
- **EQUIPMENT**: Itemize, with costs per item. "Equipment" means tangible, non-expendable items with an acquisition cost of \$5,000 or more, **and** a useful life of more than one year. "Equipment" also includes groups of items with individual costs less then \$5,000, which will be assembled into a single item with a value of \$5,000 or more and a useful life of more than one year. The CEC recommends that equipment be purchased with match funds from the Contractor or a Subcontractor to avoid the complications of State ownership of the equipment after the project.
- **MATERIALS**: Itemize, with costs per item. This includes all materials and supplies that will be exhausted during the task. "Materials" have a cost less than \$5,000 **and/or** a useful life of less than one year.
- MISCELLANEOUS: List and provide costs for other items that do not fall in any of the above categories.
- **OVERHEAD, G&A and PROFIT**: Indicate charges for overhead (direct overhead and indirect overhead may be aggregated), G&A and profit on the above categories. These should be consistent with the formulas shown in Budget Exhibit C2.
- **SUBCONTRACTORS**: List the names of subcontractors and the amount of each subcontract. Identify DVBEs. Show the total G&A expense, if any, charged for subcontracts. This should be consistent with the formula shown in Budget Exhibit C2.

In your proposal include the detailed budget for each task and the Summary budget. Shown below is a sample of budget information as it should be presented for each task in the Detailed Task Budget spreadsheets:

SAMPLE BUDGET

	E BUDGET			
Name of organization				
Title of Project				
Technical Task 2.3				
Title of Task		Total \$	Match	CEC
			Funding \$	Cost
Personnel (Direct Labor) (List personnel	Subtotals	16,600	5,000	11,600
names and/or job classifications, with number of				
hours and hourly rate for each.)				
(Name), Project Manager (50 hours @\$100)		5,000		3,000
(Name), Mechanical Engineer (200 hours @ \$50)		10,000	3,000	7,000
Machinist I (40 hours @ \$40)		1,600	0	1,600
				0
Fringe Benefits (for the above direct labor)		3,320	1,000	2,320
Travel (Describe types of travel expenses and number of trips.)	Subtotals	300	0	300
10 trips to project sites to monitor installation				
@ 30¢/mile @ approx. 100 miles per trip		300	0	300
				0
				0
Equipment (List items with cost >\$5,000 and life > 1 year.)	Subtotals	50,000	50,000	0
5 pumps (describe type) at \$10,000 each		50,000	50,000	0
				0
				0
Materials (List items and quantities.)	Subtotals	200	0	200
Electrical wire	Oubtotais	200	0	200
Licetical wife		200	U U	0
				0
Miscellaneous	Subtotals	0	0	0
Miscenarieous	Oubtotais		U U	0
				0
	Subtotals of All Above	50,500	50,000	500
	Categories			
Overhead, G&A, Profit	Subtotals	123 235	62,605	60,630
Overhead (Direct and Indirect)	Oubtotais	70,420		50,420
G&A		35,210		10,210
Profit		17,605		10, <u>2</u> 10
Subcontracts (List companies/organizations.)	Subtotals	15,350		12,675
XYZ Corp., equipment installation contract	Justolais	10,000		8,000
			_	
John Smith, Ph.D., consultant (10 days @ \$400/day)		4,000	0	4,000
G&A on subcontracts [if 5% of subcontracts]		1,350	675	675
				0
G&A on subcontracts				0
TOTALS for Task 2.3		209,005	121,280	87,725

RFP ATTACHMENT 10 (C-1)

PERSONNEL HOURLY RATES AND BENEFITS Budget Exhibit C-1

To be filled out by the Prime Contractor and for Major Subcontractors (requesting at least \$100,000 of PIER funds). List the names of key and important personnel, the name or job classification for other personnel, the direct hourly rate, fringe benefit rate, and fully-loaded hourly rate (hourly rate plus fringe benefits, overhead, G&A and profit, as applicable). If rates will change over the duration of the project, provide estimated rates for appropriate time periods. Use these rates to develop your task budgets. Use as many sheets as necessary.

Organization name:

Rates for the period from to			
Names/Job Classification-Title	Hourly Rate	Fringe	Fully-Loaded
	(\$)	Benefits (%)	Hourly Rate (\$)
Rates for the period from to			
Names/Job Classification-Title	Hourly Rate	Fringe	Fully-Loaded
Names/300 Classification-11tic	(\$)	Benefits (%)	Hourly Rate (\$)

RFP ATTACHMENT 10 (C-2)

CALCULATION OF RATES Fringe Benefits, Overhead, General & Administrative Expenses, and Profit Rates Budget Exhibit C-2

To be filled out by Prime Contractor and Major Subcontractors (requesting at least \$100,000 of PIER funds).

Rates (percentages) for time intervals covering the duration of the project	Fringe Benefits (FB)	Overhead (OH)	General & Administrative (GA)	Profit (P)
Rates from to	%	%	%	%
Rates from to (Estimate)	%	%	%	%
Rates from to (Estimate)	%	%	%	%

	Fringe Benefits	Overhead (Direct and Indirect)	General & Administrative
List items included in fringe benefits, overhead and G&A, e.g.,			
vacation, retirement plan, telephone secretarial rent/lease, insurance, etc.			

Expense Items in the Budget Spreadsheets	Provide Formulas for Calculating Fully-Burdened Invoicing * e.g., $DL \ x \ (1 + OH + GA + P)$
Direct labor (DL)	
Fringe benefits (FB)	
Travel (TR)	
Equipment (EQ)	
Materials (MAT)	
Miscellaneous (MIS)	
Subcontractors (SUB) **	

^{*} Provide additional formulas for each expense item if they will change over the duration of the project.

^{**} Prime Contractor profit not allowed on Subcontractor invoices.

Name of organization	•			
Title of Project				
Start-up Task 1.0				
Kickoff Meeting, Document Matching Funds, Identify & Obtain Require	ed Permits	Total \$	Match Funding \$	CEC Cost
Personnel (Direct Labor) (List personnel names and/or job classifications, with number of hours and hourly rate for each.)			0	(
				(
Fringe Benefits (for the above direct labor)				
Travel (Describe types of travel expenses and number of trips.)	Subtotals	0	0	
Favoirement (List items with east of 5000 and life of 1000)	Subtotals		0	
Equipment (List items with cost >\$5,000 and life > 1 year.)	Subtotals	0	0	
Materials (List items and quantities.)	Subtotals	0	0	
Miscellaneous	Subtotals	0	0	
Subtotals of All A	-	0	0	
Overhead, G&A, Profit Overhead (Direct and Indirect)	Subtotals	0	0	
G&A				
Profit			_	
Subcontracts (List companies/organizations.)	Subtotals	0	0	
G&A on subcontracts				
ТО1	ALS for Task 1.0	0	0	

Name of organization (EXNIDI				
Title of Project				
Technical Task 2.1	<u> -</u>			
Title of Task		Total \$	Match Funding \$	CEC Cost
Personnel (Direct Labor) (List personnel names and/or job classifications, with number of hours and hourly rate for each.)	Subtotals	0	0	0
				0 0
				0
				0
				0
				0
Fringe Benefits (for the above direct labor)				0
Travel (Describe types of travel expenses and number of trips.)	Subtotals	0	0	0
				0
				0
				0
Equipment (List items with cost >\$5,000 and life > 1 year.)	Subtotals	0	0	0
				0
				0 0
				0 0
Materials (List items and quantities.)	Subtotals	0	0	0
				0
				0
				0
Miscellaneous	Subtotals	0	0	0
				0
				0
	Above Categories	0	0	0
Overhead, G&A, Profit Overhead (Direct and Indirect)	Subtotals	0	0	0
G&A Profit				0 0
Subcontracts (List companies/organizations.)	Subtotals	0	0	0
				0
				0
G&A on subcontracts				0
то	TALS for Task 2.1	0	0	0

Name of organization	<u> </u>			
Title of Project				
Technical Task 2.2				
Title of Task		Total \$	Match Funding \$	CEC Cost
Personnel (Direct Labor) (List personnel names and/or job classifications, with number of hours and hourly rate for each.)	Subtotals	0	0	(
Fringe Benefits (for the above direct labor)				
Travel (Describe types of travel expenses and number of trips.)	Subtotals	0	0	
Equipment (List items with cost >\$5,000 and life > 1 year.)	Subtotals	0	0	
Materials (List items and quantities.)	Subtotals	0	0	
Lect to the drie quantities.	Gustotalo		U	
Miscellaneous	Subtotals	0	0	
Outros de la Carte	h O-1i		0	
Subtotals of All A	Subtotals	0	0	
Overhead, G&A, Profit Overhead (Direct and Indirect)	Subtotals	0	0	
G&A Profit				
Subcontracts (List companies/organizations.)	Subtotals	0	0	
G&A on subcontracts				
ТОТ	ALS for Task 2.2	0	0	

Name of organization	<u>C-3)</u>			
Title of Project				
Technical Task 2.3				
Title of Task		Total \$	Match Funding \$	CEC Cost
Personnel (Direct Labor) (List personnel names and/or job classifications, with number of hours and hourly rate for each.)	Subtotals	0	0	0
				0 0
				0
				0 0
				0
				0 0
Fringe Benefits (for the above direct labor)				0
Travel (Describe types of travel expenses and number of trips.)	Subtotals	0	0	0
,				0
				0
				0
				0
Equipment (List items with cost >\$5,000 and life > 1 year.)	Subtotals	0	0	0
				0
				0
				0
Materials (List items and quantities.)	Subtotals	0	0	0
				0
				0
				0
Miscellaneous	Subtotals	0	0	0
				0 0
				0 0
Subtotals of All A	bove Categories	0	0	0
Overhead, G&A, Profit Overhead (Direct and Indirect)	Subtotals	0	0	0
Overnead (Direct and Indirect) G&A Profit				0 0 0
Subcontracts (List companies/organizations.)	Subtotals	0	0	0
				0
				0
C.S.A. on authoratracta				0
G&A on subcontracts	TALS for Task 2.3	0	0	0

Name of organization	<u>C-3)</u>			
Title of Project				
Technical Task 2.4	<u> </u>			
Title of Task		Total \$	Match Funding \$	CEC Cost
Personnel (Direct Labor) (List personnel names and/or job classifications, with number of hours and hourly rate for each.)	Subtotals	0	0	0
				0 0
				0
				0
				0
				0
Frience Develie (fee the above direct labor)				0
Fringe Benefits (for the above direct labor) Travel (Describe types of travel expenses and number of trips.)	Subtotals	0	0	0
Tave (Besonibe types of traver expenses and number of trips.)	Cubiciais	0	<u> </u>	0
				0
				0
				0
Equipment (List items with cost >\$5,000 and life > 1 year.)	Subtotals	0	0	0
				0
				0
				0
Materials (List items and quantities.)	Subtotals	0	0	0
				0
				0
				0
Miscellaneous	Subtotals	0	0	0
				0
				0
Subtotals of All A	bove Categories	0	0	0
Overhead, G&A, Profit Overhead (Direct and Indirect)	Subtotals	0	0	0
G&A Profit				0 0 0
Subcontracts (List companies/organizations.)	Subtotals	0	0	0
				0
				0
G&A on subcontracts				0
G&A on subcontracts TOT	ALS for Task 2.4	0	0	0

Name of organization (Exhibit	 			
Title of Project				
Technical Task 2.5				
Title of Task		Total \$	Match Funding \$	CEC Cost
Personnel (Direct Labor) (List personnel names and/or job classifications, with number of hours and hourly rate for each.)	Subtotals	0	0	0
				0
				0
				0
				0
				0
				0
Fringe Benefits (for the above direct labor)				0
Travel (Describe types of travel expenses and number of trips.)	Subtotals	0	0	0
				0
				0
				0
				0
Equipment (List items with cost >\$5,000 and life > 1 year.)	Subtotals	0	0	0
				0
				0
				0
Materials (List items and quantities.)	Subtotals	0	0	0
				0
				0
				0
Miscellaneous	Subtotals	0	0	0
				0
				0
Cultivatale of All A	hava Catamariaa	0	0	0
Subtotals of All A Overhead, G&A, Profit	Subtotals	0	0	0
Overhead (Direct and Indirect)	Custotais	0	0	0
G&A Profit				0
Subcontracts (List companies/organizations.)	Subtotals	0	0	0
				0
				0
G&A on subcontracts				0
	ALS for Task 2.5	0	0	0

Name of organization	<u> </u>			
Title of Project				
Technical Task 2.6				
Title of Task		Total \$	Match Funding \$	CEC Cost
Personnel (Direct Labor) (List personnel names and/or job classifications, with number of hours and hourly rate for each.)	Subtotals	0	0	0
				0
				0
				0
				0
				0
				0
Fringe Benefits (for the above direct labor)				0
Travel (Describe types of travel expenses and number of trips.)	Subtotals	0	0	0
				0
				0
				0
				0
Equipment (List items with cost >\$5,000 and life > 1 year.)	Subtotals	0	0	0
				0
				0
				0
Materials (List items and quantities.)	Subtotals	0	0	0
				0
				0
				0
Miscellaneous	Subtotals	0	0	0
				0
				0
Subtotals of All A	bove Categories	0	0	0
Overhead, G&A, Profit	Subtotals	0	0	0
Overhead (Direct and Indirect) G&A				0
Profit				0
Subcontracts (List companies/organizations.)	Subtotals	0	0	0
				0
				0
G&A on subcontracts				0
тот	ALS for Task 2.6	0	0	0

Name of organization	<u> </u>			
Title of Project				
Technical Task 2.7				
Title of Task		Total \$	Match Funding \$	CEC Cost
Personnel (Direct Labor) (List personnel names and/or job classifications, with number of hours and hourly rate for each.)	Subtotals	0	0	0
				0
				0
				0
				0
				0
				0
Fringe Benefits (for the above direct labor)				0
Travel (Describe types of travel expenses and number of trips.)	Subtotals	0	0	0
				0
				0
				0
				0
Equipment (List items with cost >\$5,000 and life > 1 year.)	Subtotals	0	0	0
				0
				0
				0
Materials (List items and quantities.)	Subtotals	0	0	0
				0
				0
				0
Miscellaneous	Subtotals	0	0	0
				0
				0
				0
	Above Categories	0	0	0
Overhead, G&A, Profit Overhead (Direct and Indirect)	Subtotals	0	0	0
G&A Profit				0
Subcontracts (List companies/organizations.)	Subtotals	0	0	0
				0
				O
				C
G&A on subcontracts				С
ТОТ	TALS for Task 2.7	0	0	C

Name of organization (Exhibit	o o ,			
Fitle of Project				
Fechnical Task 2.8				
Title of Task		Total \$	Match Funding \$	CEC Cos
Personnel (Direct Labor) (List personnel names and/or job classifications, with number of hours and hourly rate for each.)	Subtotals	0	0	
Fringe Benefits (for the above direct labor)				
Travel (Describe types of travel expenses and number of trips.)	Subtotals	0	0	
Equipment (List items with cost >\$5,000 and life > 1 year.)	Subtotals	0	0	
Materials (List items and quantities.)	Subtotals	0	0	
Miscellaneous	Subtotals	0	0	
Subtotals of All A	bove Categories	0	0	
Overhead, G&A, Profit	Subtotals	0	0	
Overhead (Direct and Indirect)				
G&A Profit				
Subcontracts (List companies/organizations.)	Subtotals	0	0	
G&A on subcontracts				
тот	ALS for Task 2.8	0	0	

Name of organization	<u> </u>			
Title of Project				
Technical Task 2.9				
Title of Task		Total \$	Match Funding \$	CEC Cost
Personnel (Direct Labor) (List personnel names and/or job classifications, with number of hours and hourly rate for each.)	Subtotals	0	0	0
				0
				0
				0
				0
				0
				0
Fringe Benefits (for the above direct labor)				0
Travel (Describe types of travel expenses and number of trips.)	Subtotals	0	0	0
				0
				0
				0
Equipment (List items with cost >\$5,000 and life > 1 year.)	Subtotals	0	0	0
Equipment (List items with cost >\$\phi_3,000 and ite > 1 year.)	Subtotals	0	0	0
				0
				0
			_	0
Materials (List items and quantities.)	Subtotals	0	0	0
				0
				0
				0
Miscellaneous	Subtotals	0	0	0
				0
				0
Subtotals of All A	bove Categories	0	0	0
Overhead, G&A, Profit	Subtotals	0	0	0
Overhead (Direct and Indirect) G&A				0
Profit Subsentrate (List companies/organizations)	Subtotals		^	0
Subcontracts (List companies/organizations.)	Sistotaus	0	0	0
				0
				0
G&A on subcontracts				0
тот	ALS for Task 2.9	0	0	0

Name of organization	<u>(-3)</u>			
Title of Project				
Technical Task 2.10				
Title of Task		Total \$	Match Funding \$	CEC Cost
Personnel (Direct Labor) (List personnel names and/or job classifications, with number of hours and hourly rate for each.)	Subtotals	0	0	0
				0
				0
				0
				0
				0
				0
Fringe Benefits (for the above direct labor)				0
Travel (Describe types of travel expenses and number of trips.)	Subtotals	0	0	0
				0
				0
				0
Equipment (List items with cost >\$5,000 and life > 1 year.)	Subtotals	0	0	0
				0
				0
				0
Materials (List items and quantities.)	Subtotals	0	0	0
				0
				0
				0
Miscellaneous	Subtotals	0	0	0
				0
				0
Subtotals of All A	bove Categories	0	0	0
Overhead, G&A, Profit	Subtotals	0	0	0
Overhead (Direct and Indirect) G&A Profit				0 0 0
Subcontracts (List companies/organizations.)	Subtotals	0	0	0
				0
				0
C § A on subcontracts				0
G&A on subcontracts	LS for Task 2.10	0	0	0

Name of organization (Exhibit	 			
Title of Project				
Technical Task 2.11				
Title of Task		Total \$	Match Funding \$	CEC Cost
Personnel (Direct Labor) (List personnel names and/or job classifications, with number of hours and hourly rate for each.)	Subtotals	0	0	0
				0 0
				0
				0
				0
				0 0
				0
Fringe Benefits (for the above direct labor) Travel (Describe types of travel expenses and number of trips.)	Subtotals	0	0	0
Travel (Describe types of travel expenses and fulliber of trips.)	Subtotais	0	0	0
				0
				0 0
				0
Equipment (List items with cost >\$5,000 and life > 1 year.)	Subtotals	0	0	0
				0
				0
				0
Materials (List items and quantities.)	Subtotals	0	0	0
				0
				0 0
				0
Miscellaneous	Subtotals	0	0	0
				0 0
				0 0
Subtotals of All A	bove Categories	0	0	0
Overhead, G&A, Profit Overhead (Direct and Indirect)	Subtotals	0	0	0
Overhead (Direct and Indirect) G&A Profit				0 0 0
Subcontracts (List companies/organizations.)	Subtotals	0	0	0
				0 0
				0
G&A on subcontracts				0
	ALS for Task 2.11	0	0	0

Name of organization (Exhibit	. 🗸 🔾			
Title of Project				
Technical Task 2.12				
Title of Task		Total \$	Match Funding \$	CEC Cost
Personnel (Direct Labor) (List personnel names and/or job classifications, with number of hours and hourly rate for each.)	Subtotals	0	0	0
				0 0
				0 0
				0
				0
				0 0
				0 0
Fringe Benefits (for the above direct labor)				0
Travel (Describe types of travel expenses and number of trips.)	Subtotals	0	0	0
				0 0
				0
				0
				0
Equipment (List items with cost >\$5,000 and life > 1 year.)	Subtotals	0	0	0
				0
				0 0
				0 0
Materials (List items and quantities.)	Subtotals	0	0	0
				0 0
				0 0
				0
Miscellaneous	Subtotals	0	0	0
				0
				0
Outhout to a fine	hove Categories			0
Overhead, G&A, Profit	Above Categories Subtotals	0	0	0
Overhead (Direct and Indirect)	Cabiotals	0	0	0
G&A Profit				0 0
Subcontracts (List companies/organizations.)	Subtotals	0	0	0
				0 0
				0
G&A on subcontracts				0
G&A on subcontracts	ALS for Tack 2.42	0	0	0
1017	ALS for Task 2.12	0	0	U

Name of organization (Exhibit	 			
Title of Project				
Reporting Task 3.1				
Quarterly Progress Reports and Task Reports		Total \$	Match Funding \$	CEC Cost
Personnel (Direct Labor) (List personnel names and/or job classifications, with number of hours and hourly rate for each.)	Subtotals	0	0	0
				0
				0
				0
				0
				0
				0
				0
Fringe Benefits (for the above direct labor)				0
Travel (Describe types of travel expenses and number of trips.)	Subtotals	0	0	0
				0
				0
				0
				0
Equipment (List items with cost >\$5,000 and life > 1 year.)	Subtotals	0	0	0
				0
				0
				0
				0
Materials (List items and quantities.)	Subtotals	0	0	0
				0
				0
				0
				0
Miscellaneous	Subtotals	0	0	0
				0
				0
Subtotals of All A	bove Categories	0	0	0
Overhead, G&A, Profit	Subtotals	0	0	0
Overhead (Direct and Indirect)				0
G&A Profit				0
Subcontracts (List companies/organizations.)	Subtotals	0	0	0
, ,				0
				0
				0
G&A on subcontracts				0 0
	ALS for Task 3.1	0	0	0

Name of organization	. O-3)			
Title of Project				
Reporting Task 3.2				
Final Report		Total \$	Match Funding \$	CEC Cost
Personnel (Direct Labor) (List personnel names and/or job classifications, with number of hours and hourly rate for each.)	Subtotals	0	0	(
				(
				(
				(
Fringe Benefits (for the above direct labor)				(
Travel (Describe types of travel expenses and number of trips.)	Subtotals	0	0	(
				(
				(
				(
				(
Equipment (List items with cost >\$5,000 and life > 1 year.)	Subtotals	0	0	
				(
				(
				(
				(
Materials (List items and quantities.)	Subtotals	0	0	(
				(
				1
				(
Miscellaneous	Subtotals	0	0	(
				(
				(
Subtotals of All A	Above Categories	0	0	ı
Overhead, G&A, Profit	Subtotals	0	0	(
Overhead (Direct and Indirect) G&A				
Profit				
Subcontracts (List companies/organizations.)	Subtotals	0	0	
G&A on subcontracts				
то	TALS for Task 3.2	0	0	(

Name of organization	<u> </u>			
Title of Project				
Reporting Task 3.3				
Final Meeting		Total \$	Match Funding \$	CEC Cost
Personnel (Direct Labor) (List personnel names and/or job classifications, with number of hours and hourly rate for each.)	Subtotals	0	0	0
				0
				0
				0
				0
				0
				0
Fringe Benefits (for the above direct labor)				0
Travel (Describe types of travel expenses and number of trips.)	Subtotals	0	0	0
				0
				0
				0
				0
Equipment (List items with cost >\$5,000 and life > 1 year.)	Subtotals	0	0	0
				0
				0
				0
Materials (List items and quantities.)	Subtotals	0	0	0
				0
				0
				0
Miscellaneous	Subtotals	0	0	0
				0
				0
				0
Subtotals of All A		0	0	0
Overhead, G&A, Profit Overhead (Direct and Indirect)	Subtotals	0	0	0
G&A Profit				0
Subcontracts (List companies/organizations.)	Subtotals	0	0	0
				0
				0
				0
G&A on subcontracts				0
ТОТ	ALS for Task 3.3	0	0	0

Detailed Task Budgets

		Task Buuget	<u> </u>			
Summary Name of organ	Project Budget nization	CEC Reimbursable Costs	Match Funds from Prime & Subs	Total Task Costs	CEC Percentage of Task Costs	
J		Cosis	Subs		Task Costs	
1.0	Project Start-Up Tasks					
Task 1.0 Total	Kickoff Meeting, Document Matching Funds, Identify & Obtain Required Permits	0	0	0	NA	
2.0	Project Technical Activities					
Task 2.1 Total		0	0	0	NA	
Task 2.2 Total		0	0	0	NA	
Task 2.3 Total		0	0	0	NA	
Task 2.4 Total		0	0	0	NA	
Task 2.5 Total		0	0	0	NA	
Task 2.6 Total		0	0	0	NA	
Task 2.7 Total		0	0	0	NA	
Task 2.8 Total		0	0	0	NA	
Task 2.9 Total		0	0	0	NA	
Task 2.10 Total		0	0	0	NA	
Task 2.11 Total		0	0	0	NA	
Task 2.12 Total		0	0	0	NA	
	Technical Activity Subtotals	0	0	0	NA	
	Reporting Activities					
Task 3.1 Total	Quarterly Progress Reports and Task Reports	0	0	0	NA	
Task 3.2 Total	Final Report	0	0	0	NA	
Task 3.3 Total	Final Meeting	0	0	0	NA	
	Reporting Activity Subtotals	0	0	0	NA	
	Project	Total CEC Cost	Total Match Funds	Total Project Cost	CEC % of Total Cost	
	Totals	0	0	0	NA	

Key Personnel and Key Subcontractors

(Must match detailed project budget provided on Exhibit C)

Key Personnel:

Project Manager Nam	e	Bidder Contract Officer Name		
Street Address		Street Address		
City, State, Zip		City, State, Zip		
Phone	Fax	Phone Fax		
E-mail		E-mail		
		·		
Bidder Legal Person l	Name	Bidder Accounting Officer Name		
Street Address				
City, State, Zip				
Phone	Fax			
E-mail				

Key Subcontractors:

CUSTOMER REFERENCES

STATE OF CALIFORNIA

CALIFORNIA ENERGY COMMISSION CONTRACTS OFFICE

CUSTOMER REFERENCES

Provide a minimum of 4 references, use additional pages as needed.

Reference #1

Name of Organization	
Address	
Contact Name	
Contact Title	
Contact Phone Number	
Describe the services and products your firm provided to the organization.	

RFP ATTACHMENT 13

Bidder fills in entries for all parameters relevant to the proposal. All entries in a column should be internally consistent. For "Commercial Product," list the year that the project will contribute to the introduction of ARICE systems in California.

Performance Characteristics of								
Advanced Reciprocating Inter	Advanced Reciprocating Internal Combustion Engine System (Production Prototype)							
Rated Size:hp			·kW _e					
Application(s):								
Parameter	2003	2005	2007	2010				
Efficiency								
Brake Thermal Efficiency								
Fuel-to-Electric Efficiency								
Overall Efficiency (CHP)								
Emissions - shaft power (g/bhp-hr)								
Oxides of Nitrogen (NOx)								
Carbon Monoxide (CO)								
Volatile Organic Compounds (VOCs)								
Particulate Matter (PM10)								
Emissions – power generation (lb/MW	ehr)		1	1				
Oxides of Nitrogen (NOx)								
Carbon Monoxide (CO)								
Volatile Organic Compounds (VOCs)								
Particulate Matter (PM10)								
Cost								
Complete Installed Cost (\$/kW _e)								
O&M Cost (\$/kW _e h)								
Availability & Durability								
Availability								
B10 Durability (hours)								
Mean Time Between Major Overhauls								
(hours)								

Advanced Reciprocating Internal Combustion Engine System (Commercial Product)					
Rated Size:hp			kW _e		
Application(s):					
Parameter	2003	2005	2007	2010	
Efficiency					
Brake Thermal Efficiency					
Fuel-to-Electric Efficiency					
Overall Efficiency (CHP)					
Emissions - shaft power (g/bhp-hr)					
Oxides of Nitrogen (NOx)					
Carbon Monoxide (CO)					
Volatile Organic Compounds (VOCs)					
Particulate Matter (PM10)					
Emissions – power generation (lb/MW _e hr)					
Oxides of Nitrogen (NOx)					
Carbon Monoxide (CO)					
Volatile Organic Compounds (VOCs)					
Particulate Matter (PM10)					
Cost					
Complete Installed Cost (\$/kW _e)					
O&M Cost (\$/kW _e h)					
Availability & Durability					
Availability					
B10 Durability (hours)					
Mean Time Between Major Overhauls					
(hours)					
Market Potential (#of units / year)					
California					
USA					
Worldwide					

PRE-EXISTING INTELLECTUAL PROPERTY CONTRACT EXHIBIT E

For Corporation				
As of the effective date of this contract:				
Description of property		Basis for its Proprietary Nature (Serial No./Patent No.)		
Improvement ofProduction From L	ignocellulose	Patent Pending (08/833,999-*)		
(08/879,999-*) (note1)		Patent Pending		
Development of High Resistant Esc	cherichia Coli	Patent Pending (08/888,900-*)		
Recombinant Uptake System		Patent Pending (08/777,222-*)		
Recombinant Cells that Chromosomally Integrate Heterologous Genes		Patent Pending (09/111,000-*)		
Interim Report to by		Trade Secret		
Supplementary Results on batch hydrolysis of Sugar cane bagasse hemicellulose		Trade Secret		
Pilot Project for extraction and purification o	f taxanes(Final	Trade secret		

Process for preparing a high purity chemical free cellulose form a

Report September 1997)

chemical

Note 1: Title of patent pending reveals significant business sensitive information . Title is being withheld until patent is issued. Serial Number identifies the item in question.

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Patent Corporate Treaty Patent pending

Note 2: Each explanation needs to be clear enough to -describe the item as it exists as of the effective date of the contract but not so detailed that it gives away the trade secret.

^{*} means Patent Pending and no assign Patent Number yet.